North America United States
TMT Wireless Equipment

Deutsche Bank

23 June 2010

TeleNav

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

Initiate with Buy rating and $12 price target

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Launching coverage with a Buy rating a $12 price target
Telenav is a leading provider of Location Based Services which they deliver via a turn-by-turn service offered through wireless carriers. The company is enjoying growth in its existing customer base, has a large addressable market to grow into, and is expanding internationally and into mobile advertising. We think its momentum, inexpensive valuation and growth strategy merit a Buy rating.

Near-term underpinned by carrier bundles and renewed growth at Sprint
The company's core service is providing navigation Software-as-a-service (SaaS) to wireless carriers. The company continues to see good growth from its two largest customers – AT&T and Sprint. This business continues to do well. In particular, we believe renewed growth of Sprint's subs, particularly on its bundled "Simply Everything" plan (which includes Telenav) should drive Telenav's results.

Four avenues to long-term growth
Beyond its core business Telenav is developing four new growth areas – in-dash navigation with auto OEMs; additions of new carriers (including T-Mobile US and China Mobile); fleet tracking and mobile resource management; and mobile advertising. Of these, the first three are already generating revenue and short start to contribute more meaningfully in CY11. Mobile advertising remains a promising opportunity, but could take some time to develop fully.

Valuation & risks
The chief risk the company faces comes from free alternatives such as Google's for-free Navigation service which comes bundled on many Android phones. While a threat, we think Telenav has an advantage in its close relationship with carriers and their ability to offer their service on a much wider range of handsets including feature phones, a market largely overlooked by other providers. We have valued Telenav using a discounted cash flow analysis using a 3% perpetual growth rate in line with long-term industry growth and a 12.5% discount rate (using a 5.5% risk free rate, a beta of 1.4 and risk premium of 5%).

Forecasts and ratios

Year End Jun 30	2009A	2010E	2011E
1Q EPS[1]	0.02	**0.02A**	0.21
2Q EPS	0.02	**0.16A**	0.23
3Q EPS	0.02	**0.31A**	0.23
4Q EPS	0.02	**0.24**	0.24
FY EPS (USD)	0.07	**0.26**	0.91
P/E (x)	–	**32.5**	9.3
DPS (USD)	0.00	**0.00**	0.00
Dividend yield (%)	–	**0.0**	0.0
Revenue (USDm)	110.9	**168.4**	214.8

Source: Deutsche Bank estimates, company data

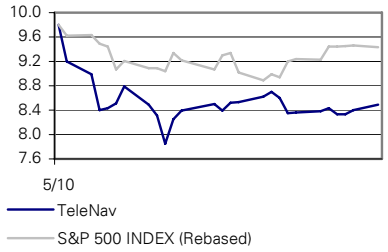
[1] Includes the impact of FAS123R requiring the expensing of stock options.

Coverage Change

Buy

Price at 21 Jun 2010 (USD)	**8.49**
Price target	**12.00**
52-week range	**9.80 - 7.85**

Price/price relative



Performance (%)	1m	3m	12m
Absolute	*-3.4*	–	–
S&P 500 INDEX	*2.3*	*-4.0*	*20.8*

Stock & option liquidity data

Market Cap (USDm)	483.1
Shares outstanding (m)	56.9
Free float (%)	100
Volume (21 Jun 2010)	6,525
Option volume (und. shrs., 1M avg.)	–

Deutsche Bank Securities Inc.

All prices are those current at the end of the previous trading session unless otherwise indicated. Prices are sourced from local exchanges via Reuters, Bloomberg and other vendors. Data is sourced from Deutsche Bank and subject companies. Deutsche Bank does and seeks to do business with companies covered in its research reports. Thus, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision. DISCLOSURES AND ANALYST CERTIFICATIONS ARE LOCATED IN APPENDIX 1. MICA(P) 007/05/2010

Model updated:22 June 2010

Running the numbers

North America

United States

Wireless Equipment

TeleNav

Reuters: TNAV.OQ Bloomberg: TNAV US

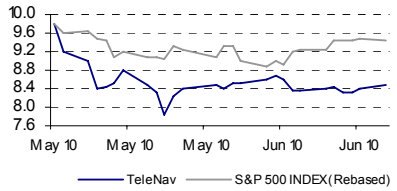
Buy

Price (21 Jun 10)	USD 8.49
Target price	USD 12.00
52-week Range	USD 7.85 - 9.80
Market Cap (m)	USDm 483 EURm 393

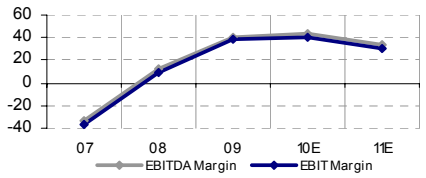
Company Profile

TeleNav is a provider of location based services, or LBS, on mobile phones. Their LBS solutions provide consumers and enterprises with location specific, real time and personalized features and functions. Through their hosted service delivery model, they provide solutions through the networks of leading wireless carriers in the United States, including Sprint Nextel Corporation, or Sprint, and AT&T Inc., or AT&T, as well as through certain carrie.

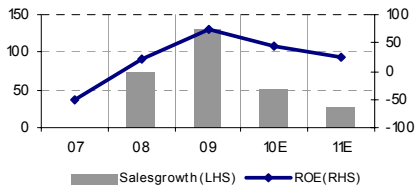
Price Performance



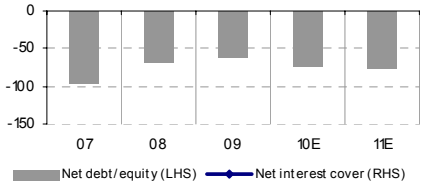
Margin Trends



Growth & Profitability



Solvency



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Fiscal year end 30-Jun	2007	2008	2009	2010E	2011E
Financial Summary					
DB EPS (USD)	-0.07	0.02	0.07	0.26	0.91
Reported EPS (USD)	-0.07	0.01	0.09	0.36	0.91
DPS (USD)	0.00	0.00	0.00	0.00	0.00
BVPS (USD)	0.15	0.18	0.40	2.33	4.42
Valuation Metrics					
Price/Sales (x)	nm	nm	nm	2.9	1.6
P/E (DB) (x)	nm	na	na	32.5	9.3
P/E (Reported) (x)	nm	na	na	23.8	9.4
P/BV (x)	0.0	0.0	0.0	3.6	1.9
FCF yield (%)	na	na	na	7.1	10.8
Dividend yield (%)	na	na	na	0.0	0.0
EV/Sales	nm	nm	nm	2.3	0.9
EV/EBITDA	nm	nm	nm	5.3	2.8
EV/EBIT	nm	nm	nm	5.7	3.1
Income Statement (USDm)					
Sales	28	48	111	168	215
EBITDA	-9	6	45	72	72
EBIT	-10	5	42	67	66
Pre-tax profit	-10	5	42	67	67
Net income	**-10**	**5**	**30**	**41**	**40**
Cash Flow (USDm)					
Cash flow from operations	**-7**	**0**	**24**	**45**	**45**
Net Capex	-2	-2	-8	-11	-8
Free cash flow	**-9**	**-2**	**16**	**34**	**37**
Equity raised/(bought back)	0	0	0	29	0
Dividends paid	0	0	0	0	0
Net inc/(dec) in borrowings	0	0	0	0	0
Other investing/financing cash flows	1	0	0	1	-3
Net cash flow	**-9**	**-2**	**16**	**64**	**34**
Change in working capital	*-1*	*-11*	*-9*	*-2*	*-7*
Balance Sheet (USDm)					
Cash and cash equivalents	19	17	33	99	133
Property, plant & equipment	3	3	7	10	9
Goodwill	0	0	0	0	0
Other assets	5	16	32	44	57
Total assets	**27**	**36**	**72**	**152**	**198**
Debt	0	0	0	0	0
Other liabilities	7	12	17	20	22
Total liabilities	**7**	**12**	**17**	**20**	**22**
Total shareholders' equity	**19**	**24**	**55**	**133**	**176**
Net debt	*-19*	*-17*	*-33*	*-99*	*-133*
Key Company Metrics					
Sales growth (%)	nm	73.4	130.7	51.9	27.5
DB EPS growth (%)	na	na	333.8	285.1	248.9
Payout ratio (%)	nm	0.0	0.0	0.0	0.0
EBITDA Margin (%)	-34.3	13.1	40.3	42.9	33.6
EBIT Margin (%)	-37.4	9.9	38.1	39.9	30.8
ROE (%)	-49.9	21.1	74.8	43.4	25.7
Net debt/equity (%)	-97.0	-69.1	-60.5	-74.5	-75.2
Net interest cover (x)	nm	nm	nm	nm	nm
DuPont Analysis					
EBIT margin (%)	-37.4	9.9	38.1	39.9	30.8
x Asset turnover (x)	1.0	1.5	2.0	1.5	1.2
x Financial cost ratio (x)	1.0	1.0	1.0	1.0	1.0
x Tax and other effects (x)	0.9	1.0	0.7	0.6	0.6
= ROA (post tax) (%)	**-36.3**	**14.7**	**54.7**	**36.2**	**22.6**
x Financial leverage (x)	1.4	1.4	1.4	1.2	1.1
= ROE (%)	**-49.9**	**21.1**	**74.8**	**43.4**	**25.7**
annual growth (%)	*na*	*na*	*255.2*	*-42.1*	*-40.7*
x NTA/share (avg) (x)	0.1	0.1	0.1	0.8	3.5
= Reported EPS	**-0.07**	**0.01**	**0.09**	**0.36**	**0.91**
annual growth (%)	*na*	*na*	*523.3*	*301.3*	*153.7*

Source: Company data, Deutsche Bank estimates

Investment Thesis

Telenav is an emerging provider of mobile location-based services (LBS). LBS offers the promise of providing value to mobile subscribers through the application of Internet data offerings filtered for the users current geographic position. Telenav currently monetizes LBS by offering a turn-by-turn navigation service via wireless carriers for use on a wide variety of handsets. Wireless subscribers pay for this service through their normal cell phone bill and have access to a navigation service that provides real-time driving instructions, similar to the experience on a personal navigation device (PND). Telenav is also working on further applications of its technology to other LBS areas.

Consumer navigation is undergoing a rapid transformation. The age of paper maps is giving away to a variety of digital offerings. This began with the advent of PC-based mapping systems such as Google maps. The next stage was the rapid growth and commoditization of the PND market which gave consumers a low-cost, somewhat portable real-time driving directions. The next stage of this process will the widespread deployment of real-time driving offerings on mobile phones. We think these offerings will be supplied through two channels – subscription services billed through the carrier, and "over-the-top" offerings supplied by 3rd parties on smartphones. Telenav is the leader in carrier-billed plans.

TeleNav provides this software as a service (SaaS) on a white label basis for carriers to supply under their own brand. Today TeleNav has over around a dozen carrier customers, but AT&T and Sprint provide the bulk of the company's customers and revenues. At AT&T consumers opt-in to an AT&T Navigation subscription paying a monthly recurring revenue (MRR), while Sprint subscribers typically get access to Sprint Navigation from Telenav via a bundled plan that covers voice minutes, a data plan and a few other data services. Telenav also has agreements to provide service to other carriers including China Mobile, Telcel in Mexico, T-Mobile USA and several others.

Telenav is benefitting from growing consumer interest in cell phone-based navigation, improving subscriber trends at Sprint and solid operating leverage derived from its SaaS model. In addition, we think the company has four other growth legs which should start to contribute meaningfully in 2011 and beyond. These include: growth at other carriers; an enterprise-oriented mobile asset tracking business; in-dash navigation platforms with auto OEMs starting with Ford's Sync platform; and further out the growth in mobile advertising.

Risks and Valuation

We see two primary sources of risk for Telenav. The first is their dependence on a small number of carrier customers for their revenue. Carriers are known to be very demanding customers. While we believe Telenav's relationship with its carrier partners is strong, the risk exists that these carriers source navigation elsewhere or more likely pressure Telenav to bring down its prices. A second, related risk is competition from OTT navigation providers. The most significant of these are deep-pocketed players in the mobile and Internet landscape including Google, Nokia and Microsoft. These three all offer comparable navigation services bundled with their mobile operating systems (OS) at no cost to carriers or consumers. We think Telenav's relationship with the carriers shield them to some degree from this competition, but long-term expect pricing to converge on these $0 offerings.

We have established a $12 price target for Telenav. Our valuation is based on a discounted cash flow analysis using a 3% perpetual growth rate in line with long-term industry growth and a 12.5% discount rate (using a 5.5% risk free rate, a beta of 1.4 and risk premium of 5%). We have also valued our company using comparable companies analysis. At our price target the company trade at 13 2010E earnings and 11x 2011E earnings. At these levels, the company would trade at a discount to our coverage universe multiple of 18x 2010E and 14 2011E. We believe this discount fully reflects the competitive pressure on the company and the associated risks.

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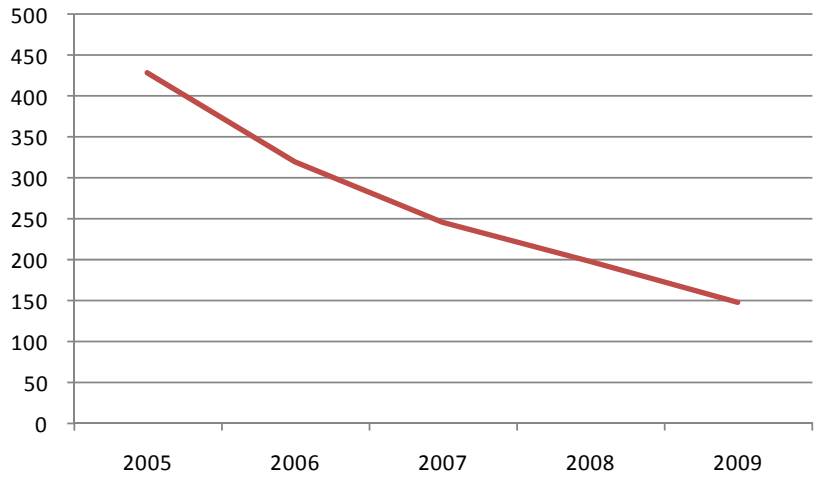
Navigation Trends

Navigation has undergone a tremendous change in the past ten years. For thousands of years finding your way from point to point was treacherous or at best inconvenient. Maps were once closely guarded national secrets that could shape the fate of empires. As people became more mobile, especially with the introduction of the automobile 100 years ago consumer use of maps has gone up considerably, but were still largely confined to static, out-of-date pieces of paper. That changed dramatically in 1999 with the launch of several online mapping services including Mapquest and Google Maps. With this dawn of the digital maps, navigation became incredibly easy and widespread.

Today, it is hard to find paper maps at all. This is profound shift, but one which has gone largely unnoticed as it gradually creeps into everyday life. We see this whole evolution as similar to what happened with the notion of time. For centuries this was immeasurable for most people outside of a small coterie of specialists. Gradually clocks and then watches become so commonplace that they were woven into the fabric of daily life. Similarly, we think location or position is becoming yet one more metric that will deliver value in new ways.

The first step in this process is improved navigation systems. Digital maps have become portable, beginning with the introduction of in-dash navigation systems in cars. This portability accelerated five years ago with the advent of relatively low-cost portable navigation devices (PND). The introduction of low-cost merchant GPS semiconductors from SiRF brought navigation fully into the realm of consumer electronics. Today you can buy PNDs for under $200 that can cover most of the world's drivable surfaces. Below we update our global PND model. Exact counts are difficult to come by, but we think the market likely peaked last year.

Figure 1: Average PND prices ($)



Source: Deutsche Bank, Garmin and TomTom

Figure 2: DB PND Model

	2005	2006	2007	2008E	2009E	2010E	2011E	2012E
Europe	2.6	9.2	14.5	18.8	17.9	16.4	15.3	14.5
YoY growth		*256%*	*59%*	*29%*	*-5%*	*-8%*	*-7%*	*-5%*
US	0.6	2.9	10.1	19.1	22.0	22.3	21.6	21.2
YoY growth		*409%*	*256%*	*89%*	*15%*	*1%*	*-3%*	*-2%*
Rest of World	0.0	0.5	1.2	2.7	4.2	4.9	5.4	6.0
YoY growth			*166%*	*123%*	*59%*	*15%*	*12%*	*10%*
Total	**3.1**	**12.5**	**25.9**	**40.6**	**44.1**	**43.6**	**42.3**	**41.7**
YoY change		*298%*	*108%*	*57%*	*9%*	*-1%*	*-3%*	*-2%*

Source: Deutsche Bank

One of the difficulties PNDs faced has been trying to determine penetration rates. The market has typically compared PND unit sales to estimates of car sales or cars on the road. By that metric the market looks relatively underpenetrated, with 2009 PND volumes equal to about 6% of cars on the road in the US and Europe. However, PND sales in both Europe and the US have exceeded auto sales for the past several years. Moreover, we think a better metric of penetration is to compare PNDs to auto sales after factoring in-dash systems. Most luxury cars today come with some form of in-dash navigation system built-in at sale. If we strip these out penetration rates appear to be close to saturation. We calculate this in the chart below. Admittedly, this is not a perfect metric of comparison, as PND purchases are made independent of car purchases. Nonetheless, we think the trend has significant implications.

Figure 3: The Rise and Decline of PNDs (Global auto sales minus cars with in-dash nav)

	2006	2007	2008E	2009E	2010E	2011E	2012E
PND Addressable market *	52,090	49,043	45,896	47,052	46,967	47,632	47,330
Penetration	24%	53%	88%	94%	93%	89%	88%

*Source: Deutsche Bank. * PND addressable market defined as auto sales minus cars with built-in navigation.*

We do not think the penetration of positioning and location systems has come anywhere close to peaking. However, we do think the method of distribution is set to move away from auto-related channels, particularly the cell phone.

Mobile Location-Based Services

The next evolution of navigation is already well underway, with a shift from standalone navigation sources to becoming just one more feature in the personal data device known as the cell phone.

As with the rest of this process, the shift in cell phones will have multiple steps. The first, is the transition of current systems to cell phone equivalents. This will include navigation and mapping features. With time, however, combining precise positioning data with mobile access to the Internet will open up the field to a far wider range of offerings.

Companies are searching for new ways to make money and deliver this value by giving users data about things around them. This idea is known as location-based services (LBS). We expect to see a wide range of business models chasing this, and we already seeing dozens of start-ups try different approaches.

As business models evolve, the underlying state of the industry will make these services more readily available to a wider and wider audience.

The first technical requirement will be data-enabled cell phones. On the following page is our global handset model. By our count 88% of the 1.4 billion phones sold this year will be data-enabled in some way (EDGE or CDMA 1x and up). This includes high end 2G phones with some basic data capabilities, that could arguably handle navigation and LBS. Almost half of

these, or 41% of total handsets will be true 3G or 4G enabled, capable of fielding full-blown data connections and rich-media offerings. By 2014, virtually all phones will have at least 2G connection rates (96%) and 73% will have 3G or higher data rates.

Figure 4: DB Global Handset Model

By Technology (in thousands)	2004	2005	2006	2007	2008	2009	2010E	2011E	2012E	2013E	2014E	2015E
Handset Unit Shipments												
GSM	474,552	638,187	728,233	828,067	891,537	774,457	721,178	638,856	553,874	458,450	374,404	284,933
# GSM	*202,847*	*137,115*	*34,895*	-	-	-	-	-	-	-	-	-
# GPRS	*252,893*	*381,865*	*476,192*	*431,678*	*361,963*	*222,905*	*149,649*	*95,041*	*86,455*	*75,786*	*65,013*	*52,328*
# EDGE	*18,812*	*119,207*	*217,146*	*396,389*	*529,574*	*551,552*	*571,529*	*543,815*	*467,419*	*382,664*	*309,392*	*232,604*
WCDMA	18,029	60,891	98,134	172,224	263,637	308,001	404,285	547,886	674,504	786,063	880,330	958,265
#WCDMA	*18,029*	*60,890*	*92,288*	*135,891*	*145,200*	*121,435*	*104,540*	*86,182*	*115,113*	*144,733*	*168,814*	*190,460*
#HSDPA	-	*1*	*5,846*	*36,334*	*118,437*	*186,565*	*299,745*	*461,704*	*559,391*	*641,331*	*711,517*	*767,805*
CDMA	151,212	166,941	200,877	209,246	216,994	211,648	232,500	242,881	250,748	260,134	265,181	269,669
# CDMA	*3,698*	*0*	-	-	-	*3,626*	*9,317*	*10,007*	-	-	-	-
# CDMA2000 1xRTT	*136,491*	*143,462*	*154,187*	*134,041*	*105,932*	*91,477*	*74,332*	*50,528*	*47,476*	*43,582*	*41,912*	*39,821*
# CDMA450	-	-	-	-	-	-	-	-	-	-	-	-
# CDMA2000 1xEV-DO	*11,023*	*23,479*	*46,689*	*75,206*	*111,062*	*116,545*	*148,851*	*182,346*	*203,272*	*216,552*	*223,269*	*229,848*
LTE	-	-	-	-	-	-	711	3,372	7,142	21,464	40,473	72,709
TD-SCDMA	-	-	-	-	-	3,952	15,582	19,362	24,527	34,890	44,826	54,556
WiMax	-	-	-	-	-	880	3,104	5,446	8,086	11,012	13,943	17,139
TDMA	12,125	9,830	5,089	1,695	-	-	-	-	-	-	-	-
iDEN	6,626	6,358	5,963	6,123	4,502	2,117	2,148	2,129	2,120	2,114	2,097	2,077
AMPS/Other	14,620	9,386	5,323	2,913	1,793	560	1,278	1,040	1,040	1,073	1,094	1,109
Total Unit Shipments	**677,163**	**891,593**	**1,043,619**	**1,220,269**	**1,378,463**	**1,301,614**	**1,380,788**	**1,460,971**	**1,522,040**	**1,575,201**	**1,622,348**	**1,660,456**

Source: Deutsche Bank, Informa, GSMA, IDC, CDG, company data

The next technical requirement will be for phones to actually have GPS capabilities. This is trickier to count. All CDMA-based phones have some form of GPS built-in, this is a requirement of the standard. This includes all CDMA 1x, CDMA EV-DO and WCDMA phones, which will be around 46% of phones sold this year. However, many of these phones' GPS is not capable of providing accurate, rapid positioning data or offload much of the calculation to the network. This makes many of them inappropriate for LBS work. Nonetheless, handset makers have been regularly stating they intend to increase the attach rate of GPS in their phones. As a rough estimate, we think all 3G and 4G phones should have true GPS capabilities, or roughly 41% of phones this year. (This probably overstates the number of LBS-ready 3G phones, but also undercounts 2G phones with GPS.)

This leaves us with a market in which around 40% of handsets are now capable of providing navigation and other LBS. In the US and Western Europe, this figure is 88%. So it should come as no surprise that we expect to see LBS develop in the US and Europe first. However, we think adoption will come quickly in other parts of the world. For many people in emerging markets, their cell phone is their first and likely only data device. PC ownership rates lag those in develop markets, and we see no reason for them to catch up any time soon. We will likely have a generation of people skipping the PC-based navigation model and going straight to cell phone navigation.

Competitive Landscape

Inside and Outside the Walls

As navigation moves to the cell phone we expect to see a new set of companies providing navigation services. In the past, navigation was largely a hardware-base offering either in-dash navigation sourced from auto component suppliers or stand-alone PND vendors like Garmin and TomTom. On phones, navigation becomes a software feature. Here, we see two primary sources of competition for Telenav – other providers of carrier branded, white-label navigation SaaS vendors and "over-the-top" third party providers who operate without any direct relationship with carriers.

White Label Competitors

Until recently, the only way to navigate in real-time on a cell phone was to work through the wireless carriers. Typically, these carriers did not provide the service themselves, but sourced solutions from SaaS vendors on a white-label basis, meaning the carriers attached their brand to the service. Qualifying as a carrier supplier is a grueling process, and typically on a small number of companies have the staying power to provide "carrier-grade solutions. As a result only a small number of companies today offer this service to carriers. In the US, there are effectively only two vendors – TeleNav and Networks in Motion which was recently acquired by Telecommunications Systems (TSYS, not rated). TeleNav is a supplier to AT&T, Sprint and T-Mobile US, while NIM/TCS supplies Verizon. In Europe and elsewhere there a number of smaller vendors in various stages of roll-outs. The most prominent of these was Wayfinder which was acquired by Vodafone in 2009, but has since been shut down.

We believe this white label model is very sticky. There are considerable barriers to entry in the form of carrier qualification procedures. Further, carriers are unlikely to switch vendors once they have deployed a service. We have heard of instances when one white label vendor is able to offer significantly lower-priced services than an incumbent supplier, but are unable to gain entry to the carrier and displace the incumbent. From a carrier point of view, the benefit of a slightly cheaper service are far outweighed by the risks of switching. Since carriers typically operate under intense regulatory and media scrutiny any disruption of service that resulted from a switch would likely draw public reaction. This does not mean that TeleNav has signed up lifelong customers, but it does limit the competition in the white label space to some degree.

Over the Top

An emerging trend is for consumers to seek navigation and other data services from parties beyond the carrier. These are often referred to as "over the top" providers, as in coming over the top of carrier walled garden service offerings. In general, the over the top vendors only provide service to relatively open handset platforms, which effectively means smart phones only. By contrast, white label vendors spend significant resources porting their solutions to be available on all phones offered by a particular carrier. In the case of TeleNav, they have ported their solution to over 500 handsets, which include smartphones and feature phones which lack a true operating system.

In navigation today we see two classes of over-the-top vendors. The first are independent developers who provide navigation "apps". This arena is largely limited to phone platforms with healthy app ecosystems meaning the Apple iPhone. A search on the AppStore for navigation typically yields around 50 apps offering a range of navigation services. The best selling of these come from PND vendors who have ported their solution to the iPhone including TomTom and Navigon. The TeleNav solution is available on the iPhone, but we view this as a small opportunity for the company.

The second category of over-the-top navigation comes from smartphone platform vendors – in particular, Google, Nokia and Microsoft. All three have their own operating systems for smartphones, and all three have launched free turn-by-turn navigation solutions. These companies have the advantage of vast scale and the ability to pre-load their applications with their smartphone OS. The downside of this is that their offerings are typically only available on a limited number of handsets.

This approach also raises concerns with carriers. Carriers are often wary of letting other parties get too close to their subscribers. Wireless operators today live in fear of becoming "dumb bit pipes" who offer commodity access service at thin margins. While they are increasingly realizing that they cannot compete with Internet companies in many fields, our sense is that most carriers still feel they have advantages in offering LBS and navigation services. We believe they are not comfortable giving up this service to other large companies. To some degree this should give TeleNav a valuable ally in building their business.

That being said, we see two risks from the over-the-top providers. The first is that they are setting prices at zero and this will put pressure on TeleNav to bring prices down, converging on free. Carriers have proven that they are willing to pay for a service they see as valuable, so we do not think this pressure will be intense or sudden. However, we do expect a gradual, continual decline in navigation prices. We also expect carriers to increasingly bundle the navigation service as part of broader package as Sprint has done. We will explore this topic further in a later section. A second, less likely prospect, is that the over-the-top providers succeed in becoming de-facto platforms for the majority of phones. In particular, we think Google's Android platform shows some potential on this front. While this possibility exists, it will only come about after prolonged resistance from carriers, and in that fight the carriers will need trusted partners like TeleNav to compete.

Pricing Models

Carriers sell TeleNav's services using two different pricing models. The first is the monthly recurring revenue (MRR) in which consumers opt-in for an additional service paid monthly. AT&T uses this model. It charges consumers $10 a month to sign up for navigation. The app is pre-loaded on most AT&T phones, but consumers have to pro-actively sign up for it. This results in a higher per user fee paid to TeleNav, we estimate this to be around $5 per month per subscriber. But it also limits the growth of the subscriber base.

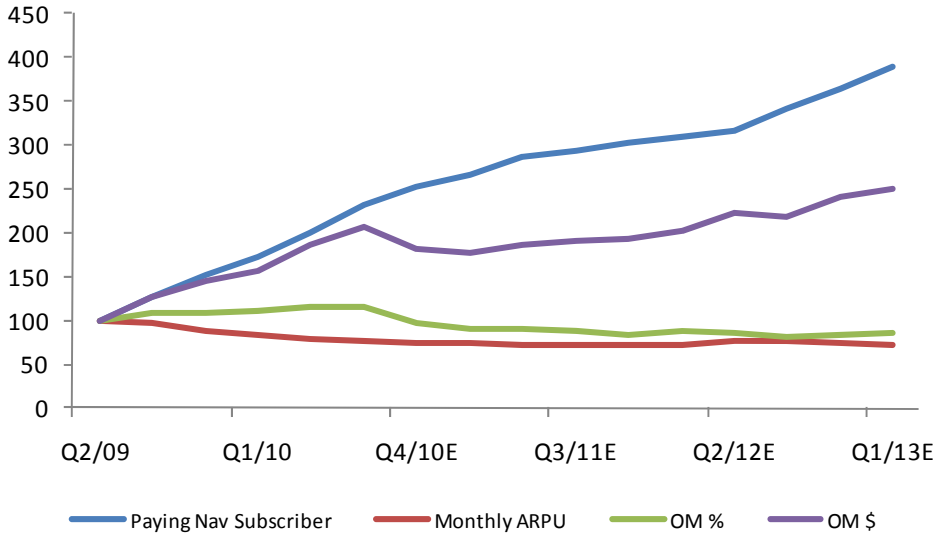
The second model is a bundled offering. In this model consumers buy a bundle of services from a carrier which includes voice minutes, a data plan and a small number of data services. In the case of Sprint, they have been promoting their "Simply Everything" plan which includes unlimited voice, data and texting for $99. It also includes Sprint TV, a Nascar service, an NFL service and Sprint Navigation, powered by TeleNav. In this model consumers have TeleNav service but may not realize it. Sprint pays a far lower price per subscriber to TeleNav here, we estimate this to be below $1 per month per sub. However, it results in a far higher number of subscribers. Of TeleNav's 14.5 million subscribers as of March 31, we estimate that between 12 and 13 million are Sprint customers.

These models reflect differing carrier motives. For MRR, carriers are looking for additional revenue streams. This has been somewhat successful. After traditional voice, text and data charges, we believe navigation has been one of the most popular carrier subscription services. For bundling, we believe the primary interest is marketing. Most consumers will likely be ambivalent about signing up for navigation. However, for some the appeal of having that one extra service may be enough to convince them to sign up for the bundled plan. Whatever this number is, it makes up for all the others, and thus serves as an effective marketing tool.

So the trade-off for Telenav is lower prices versus more subscribers. Is it better to get $5 for MRR or $1 for a bundle. Given TeleNav's SaaS model, the cost of each incremental subscriber is very low. They have built a data center which carriers a high fixed cost, but additional resources beyond that are minimal. As a result, they have tremendous operating leverage. In general, they are better off with bundled pricing plans. The elasticity of demand in this model such that at $1 per sub they typically get far more than 5 additional subscribers, the ratio is probably closer to 12. So while revenue on MRR is higher on a per subscriber basis, total operating margin dollars ends up being higher in a bundle.

The graph below illustrates this clearly. This shows subscriber count, average revenue per subscriber, operating margin percentage and total operating margin dollars all indexed for 2Q09. On a per sub basis or a percentage basis, metrics have generally declined, but on a total subscriber and more importantly total dollar level TeleNav has enjoyed significant growth.

Figure 5: Indexed Revenue, ARPU and Subs, OM% and OM dollars (2Q09 =100)



Source: Deutsche Bank and Company Data

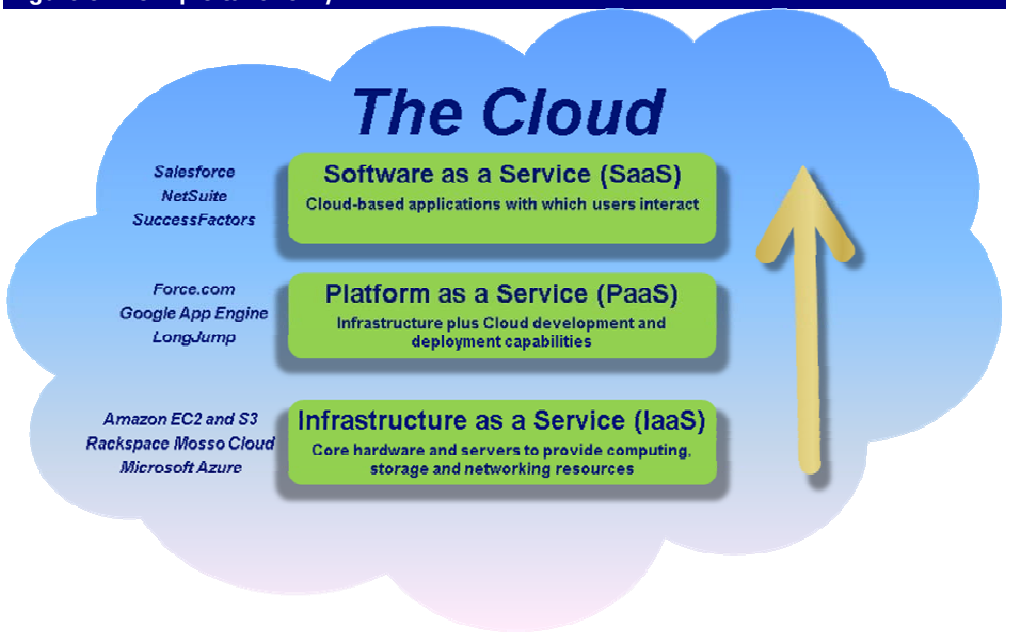
The shift to SaaS gains steam

The adoption of Software-as-a-Service solutions (and more broadly the popular moniker "Cloud Computing") has been well-publicized, and we estimate the majority of venture money spent on software overall (majority in application software) is now within this segment. While services-based software remains relatively early stage, we believe adoption is accelerating and will be the largest technological/business model disruption the software industry has seen since client-server adoption in the 1980s.

The proliferation of broadband makes it more feasible to offer software over the web and via mobile phones. The compelling economics of an on-demand solution have gradually outweighed security and performance fears that have previously hindered the market. More importantly, rapidly evolving business drivers, which are compartmentalizing legacy business processes (outsourcing, globalization, a shift to core-competencies) have made the current enterprise software model less relevant and are fueling corporate acceptance of software-as-a-service functionality to cost-effectively differentiate from competitors. Finally, momentum of web services integrations have enabled SaaS firms to innovate much more quickly than legacy vendors and lessen the wide functional gap that had plagued immature vendors.

A recently published IDC survey shows that companies expect, on average, 20% of their IT budgets will be earmarked for cloud computing in 2013, up from 14% in 2010.

Figure 6: A simple taxonomy



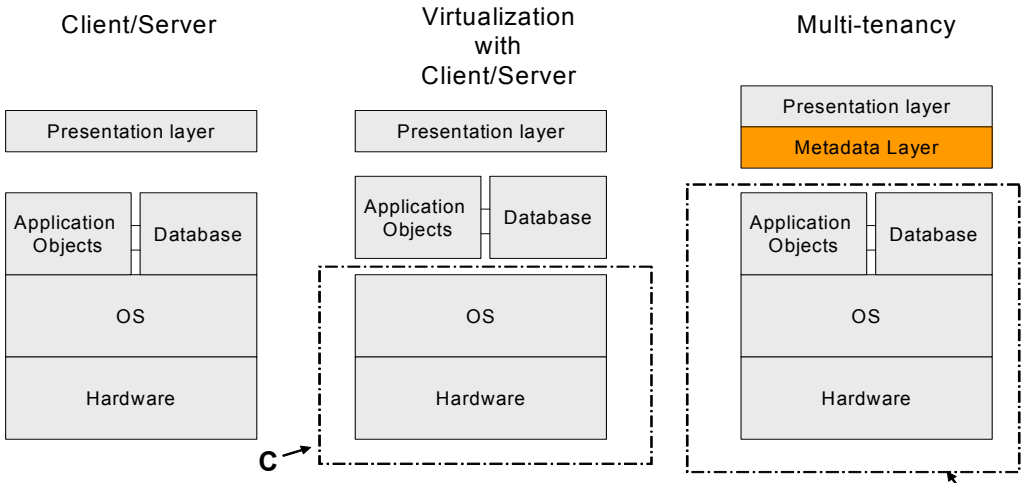
Source: Deutsche Bank and IDC

A look at the technology

We believe the technology is different than today's software stack as the code base needs to be developed and optimized for the Web, in a multi-tenant architecture. As such, successful applications are embedding more advanced Web 2.0 capabilities and scripting (AJAX, mash-ups, etc.) to deliver robust functionally within the browser. Furthermore, we believe the most successful vendors longer-term will enable metadata customization that offer customers the ability to customize the presentation layer needs (as well as workflow and some other areas) to be able to offer feature/functionality, customization, and scalability together.

Software-as-a-service enables economies of scale through a multi-tenant architecture approach (multiple tenants/customers are supported on a single instance of an application) that scales at lower infrastructure costs. This is possible through the pooling of resources (such as network connections and partitioning of large databases ensure efficient utilization of resources) while still being able to differentiate data belonging to different customers using metadata to configure the way an application appears and behaves for its users. The provision of shared services (billing, metering maintenance of hardware & other infrastructure) across all customers contributes to a reduction in fixed cost per customer.

Figure 7: Architectural view of the shift towards SaaS



Key differences between Virtualization with Client Server and Multi-tenancy

•**Customization is done at the Metadata layer in Multi-tenancy** – this enables the SaaS provider to control the application objects and the data dictionary in the Database

•**Metadata layer abstracts customization to a separate layer** – separating out the customization layer (M) enables version-less software. Thereby concentrating R&D on one version, reducing application management costs, limiting infrastructure costs, while enabling internet-type architecture scaling capabilities

•**Virtualization doesn't limit application instances or database instances** – Virtualization is driving IT costs down by enhancing server utilization, enabling better systems management, and lowering admin costs by virtualizing the layer labeled C above. This does not limit costs associated with changing the application or database and scaling applications to internet-type performance is unproven in core business areas

Source: Deutsche Bank

There are three popular implementation models in the industry, of which we believe only the multi-tenant model truly delivers a generationally more efficient delivery of software.

- Hosted on-premise: A commonly cited on-demand approach from legacy on-premise vendors is a delivery model that resembles that of a Managed Service Provider, whereby customers have web-access to an on-premise offering such that they maintain the benefits of on-premise software (via customization) but outsource the data center costs. A hosted on-premise offering (like Oracle's legacy on-demand business or Microsoft's recent push on the Dynamics portfolio) does not lead to significant infrastructure cost savings.
- Isolated Tenancy: utilizes one application version with configuration capabilities alongside a separate data model for each customer, thus enabling modification to the data structure and ease of transitioning to an on-premise version (SAP's traditional model).
- Multi-tenant SaaS: Common among next generation SaaS vendors that utilize one version of software for multiple customers while leveraging metadata customization for configuration and Web Services APIs for integration. The approach reduces server needs as infrastructure is shared across customers for more efficient use of resources.

Telenav's solution architecture is multi-tenant, allowing large deployments (now over 14m subscribers) hosted on a common infrastructure that enjoys the scale benefits of SaaS.

Although the overall themes from our previous reports on SaaS in 2006 [Software-as-a-Service: Opening Eyes in '07; Half the Market in '13] and 2008 ["SaaS and Cloud Computing: End game clearer in '08 - Legacy checkmate"] continue and many are strengthening, several new dynamics have emerged:

1. Platforms are forming as cloud computing moves front and center - There is a more pronounced push towards platforms-as-a-service. Cloud computing platforms have emerged that enable corporate IT, ISVs, SIs, and independent developers to build and deliver SaaS applications over the Internet (without the heavy investments in infrastructure). CRM's Force.com, Google's App Engine, Amazon's EC2 web services are all gaining traction, helped by slow capital spending during the recent recession.
2. Software and Internet heavyweights are starting to respond - Google, Yahoo!, SAP, Microsoft, Oracle. However, the heavyweights' entry into SaaS has been tentative at best. We see various struggles (similar to the reason for SAP's delay in BusinessByDesign). Structural misalignment, time-to-market with R&D impediments, cannibalization threats, and business model hurdles may all be potentially too high to overcome
3. Ecosystems appear to be changing - The larger SI providers appear to be only dabbling and seem reticent to significantly push SaaS, as the services attached are still relatively small. However, all major SIs have initiatives to engage with many SaaS vendors and many have built practices around extending their historical on-premise competencies to "hybrid" models that include certain cloud-based applications.

Figure 8: Economic benefits of SaaS

➢**Reduced Costs**	Cost efficiencies: **stack efficiency** - sharing of infrastructure (i.e., Databases, Storage, Security, Servers, etc.), **lower management costs** (outsourcing application and infrastructure management drives significant savings to CIO), **lower implementation costs** (rollouts are more efficient via ease-of-use, higher adoption, and access)
➢**Faster Innovation**	Faster innovation: **focused R&D dollars** – vendors invest in new product and performance, not support of legacy applications and platforms, **version-less software** – having one version enables all customers to take advantage of innovations and share feedback and improvements across customer base, **Controlled Feedback loop** – for the first time vendors can analyze adoption, usage, feedback and iteratively optimize the application for all customers
➢**Higher Success**	SaaS implementations demonstrate higher success rates: **start small, monitor, and expand** – implementations typically start small at the departmental level and then expand as vendor can monitor rollouts, **discipline of usage** – SaaS versions offer configuration capabilities, preventing mass customization that historically has been the key failure of enterprise software, **reduced IT reliance** – departmental rollouts require less internal IT involvement and coordination, leading to faster implementations and less bureaucratic roadblocks
➢**Better Access**	Users are increasingly getting improved access to applications**: uptime performance largely better than internal delivery** – increased transparency of performance requires that vendors keep near 100% availability, **Remote/Mobile access improved** – users are increasingly accessing enterprise applications from different locations and devices (i.e., home PC, Laptop, iPhone, Blackberry, etc.), **Integration to 3rd parties easier with web services** – SaaS applications are founded on web services and therefore enable quick access and communications to other applications and services on the internet
➢**Opportunities unlimited**	SaaS opens the door to much, much more: **Analytics opportunity** – because the data resides in aggregate and is available, analytical opportunities are created , **Integration of consumer/business interface** – As Google and others deliver consumer, productivity, and collaborative applications online, the possibility for universal access and collaboration becomes possible, **B2B efficiencies to come** – with applications moving to the cloud, the possibilities for newer B2B efficiencies (visibility, collaboration, and integration) are enhanced.

Source: Deutsche Bank

SaaS is distinct trend from other technological shifts

We see SaaS and the shift to cloud computing as more than just a technology and a business model adjustment for the industry as it points to a migration to outsource much of corporate IT's administrative processes (i.e., storage, security, application management, database management, etc.) while accelerating the pace of innovation and likely improving economic productivity more generally. This differs dramatically from other trends pushed down from the CIO such as SOA (Services Oriented Architecture), Virtualization, use of software appliances, etc. New platforms and services are being developed for enterprises moving beyond four-walled systems. Such a transformation is likely to have a more pronounced impact on a corporation's productivity than a shift in architectures within an IT department

Marketing messages often cloud the value differences between SaaS and Virtualization

While there has been increased rhetoric around different marketing messages and even some confusion as to virtualization technologies being a substitute to SaaS, we stress that the use of virtualization technology to lower IT support costs for client/server software is a far cry and distinct from SaaS. We believe the value from SaaS is derived from multi-tenancy and provider control of one-version of software as this drives faster innovation (i.e., focused R&D on one version), better scaling, and lower management and infrastructure costs.

Multi-tenancy is most likely to perform at internet scale only if customization/configuration is done at the metadata layer. This requires a different approach to application development than the traditional client/server model, and takes time to tune and optimize and build mature functionality. Salesforce.com has been building this for almost ten years and has only recently enabled complex workflow and business logic rules. We believe competitors will have difficulty replicating this and anticipate many iterations of development before they can match performance

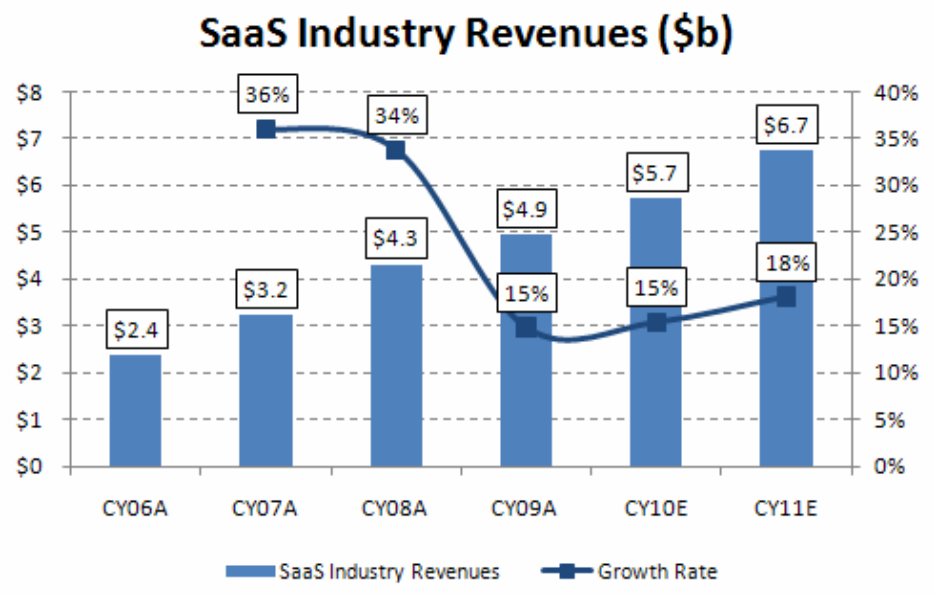
Figure 9: The SaaS Landscape

Category	Market penetration, competitive environment and Trends	Companies
CRM	■ Market penetration: Gartner estimates a $7.8b market in '07 at 5 yr CAGR of 11% ■ Competitive dynamics: Non fragmented with clear category leaders, stable pricing, differentiated product with end to end offerings – larger players possibly threaten longer-term ■ Trends: SFA expected to outgrow market by ~40%	■ salesforce.com ■ RightNow ■ SugarCRM ■ eSalesTrack ■ Constant Contact
Talent Management	■ Market penetration: IDC estimates a size of $6.4b for '07 at 5 yr CAGR '06-11 of 7.3%. Penetration in early stages with only 8% of US large enterprises using application tracking ■ Competitive dynamics: Fragmented market, rising prices for strategic solutions and static for Core HR products ■ Trends: Application tracking and performance mgmt to be category leaders with ~15% 5 yr CAGR growth	■ SuccessFactors ■ Taleo ■ Ultimate Software ■ Cornerstone OnDemand
Web analytics	■ Market penetration: Our estimates indicate $500m with growth rate of ~25% for 2 years ■ Competitive dynamics: Consolidation by leaders reducing competition, behavioral analytics enjoying higher price than search analytics ■ Trends: Solutions are advancing capabilities to further enhance site optimization via analytics, targeting, testing, and other media	■ Omniture (Adobe) ■ Google Analytics ■ WebTrends ■ Coremetrics Analytics
Spend Management	■ Market penetration: Our estimates indicate SRM to grow to $2b ■ Competitive dynamics: Fragmented market, pricing varies with functionality depth and category (i.e., sourcing, P2P, analytics, etc.) ■ Trends: Traction towards on demand solutions and emergence of B2B networks is growing. Moving from paper based re imbursement systems to End-to-End Travel Booking and Expense management systems	■ Ariba ■ Concur ■ Tangoe
Enterprise Resource Management	■ Market penetration: Gartner estimates SaaS ERP in 2009 was over $1.2b ■ Competitive dynamics: Outlook conservative due to complexities of vertical industries. SAP still having problems with Business by Design. ■ Trends: NetSuite customizing their offering to better serve manufacturing	■ NetSuite ■ Lawson (new Cloud offering on EC2) ■ Workday ■ Plex ■ FinanceForce (Coda)

Source: Deutsche Bank

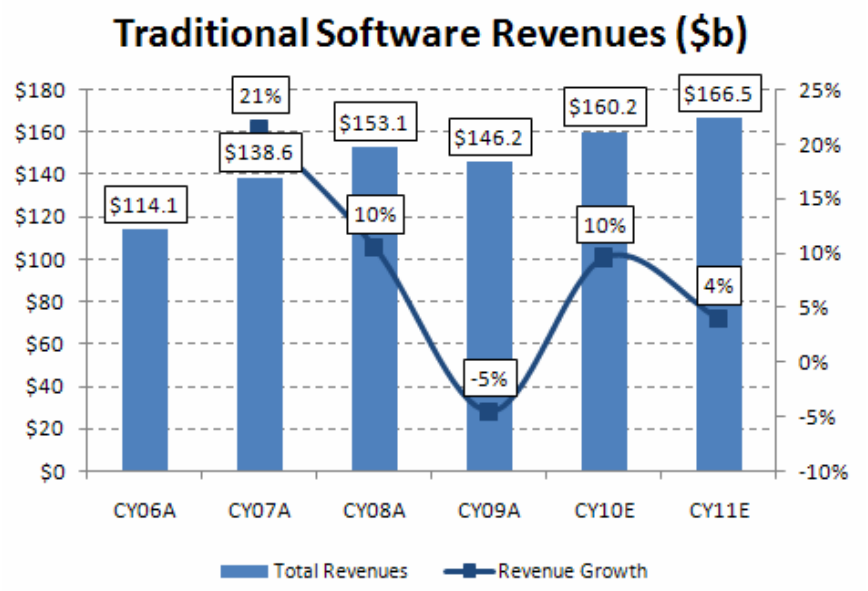
Growth trends of SaaS vs. traditional software

Figure 10: SaaS Industry Revenues ($b)



Source: Deutsche Bank

Figure 11: Traditional Software Revenues ($b)



Source: Deutsche Bank

Figure 12: Some recent significant movements by bigger players in this space

Competitor	Initiatives	Challenge
Microsoft	■ Launched Dynamic CRM Live ■ Plans single code base for on-premise, partner hosted and Microsoft hosted ■ Announced online versions of SharePoint and Exchange applications in March '08	■ Infrastructure cannibalization ■ Channel challenges ■ R&D dilemma
SAP	■ Launched basic CRM in '06 ■ Announced Business-by-Design SaaS ERP solution for mid-market, but very little progress shown so far ■ Laid out a new product roadmap for BBD to be released at May Sapphire event ■ Expects by 2011 subscription revenues to be enhanced by BBD and on-demand extensions for large enterprises	■ Maintenance cannibalization ■ Sales incentives challenges ■ Organizational DNA ■ R&D dilemma ■ Tougher competition from smaller players
Oracle	■ Released Siebel on-demand version 15 with social networking capabilities ■ On-demand biz is a pure hosting deal	■ Infrastructure cannibalization ■ Maintenance cannibalization ■ Sales incentives challenges ■ Organizational DNA ■ R&D dilemma
IBM	■ Increasingly partnering with SaaS companies (i.e. Siebel, CRM, PTC) ■ Announced the availability of Blue Cloud platform ■ Goal to be platform provider	■ Pressure on database sales

Source: Deutsche Bank

Company Overview

Company Description

TeleNav provides location-based services (LBS) to consumers and enterprises on mobile phones. TeleNav enables its customers to use GPS navigation services and obtain relevant local information. The company offers its solutions through the wireless networks of Sprint and AT&T in USA, along with other carriers in China, the United Kingdom and Brazil. TeleNav's LBS can be delivered through a wide variety of wireless network protocols, are compatible with all major mobile phone operating systems, are supported on more than 500 mobile phone models and delivered to millions of end users simultaneously. For the quarter ending 31st March 2010, TeleNav had a monthly average of 14.5 million paid end users. TeleNav was founded in 1999 and has grown from $28 million in revenue in FY07 to $111 million in FY09. As of 31st March 2010, TeleNav had 878 employees.

The company derives revenue from:

TeleNav GPS Navigator
LBS are delivered to users' mobile phones through TeleNav's GPS Navigator. Users get turn-by-turn directions by voice and onscreen. The GPS navigator integrates mapping solutions with real-time information on traffic, weather content and other points of interest (POIs). These services can be delivered to a wide variety to mobile phones (more than 500 different models), running on different mobile phone operating systems connected to various wireless network protocols.

TeleNav Track
TeleNav Track is a mobile resource management (MRM) system. This solution enables enterprises to manage mobile workforce and assets by leveraging TeleNav's LBS platform. It helps in locating, dispatching and tracking workforce and exchanging time-critical information with mobile workforce. Track facilitates communication between mobile workforce and an organisation's back-end systems, leading to improvement in management of assignments. Employees use Track to send out information wirelessly to enterprise back-end systems using their mobile phones. Track can also be integrated with an organisation's back-end systems and applications such as billing, accounting and dispatching applications.

TeleNav Automotive
With the help of TeleNav's in-dash navigation solutions, automakers can deliver a variety of connected navigation services with the same hardware in any vehicle. Vehicle buyers can activate or upgrade these solutions at any time during or after the initial purchase. The in-dash navigation system is equipped with a flexible HMI (human-machine interface) that is customizable and works on voice commands.

The in-dash navigation is offered in three variants to satisfy customers at all price points and requirements. These delivery solutions are:

1. *Traditional On-Board Solution*: This is a basic service. Data on maps and directory of POIs stored in the in the head unit. The business directory comes with 12 million POIs. Maps and POIs can be upgraded using SD card.
2. *On-Board Navigation Solutions:* The in-dash navigation device is connected to TeleNav servers and receives real-time location based services. Along with 3D moving maps, drivers receive traffic alerts, e-commerce functions, business directory of over 12 million POIs, enhanced merchant content and weather information.

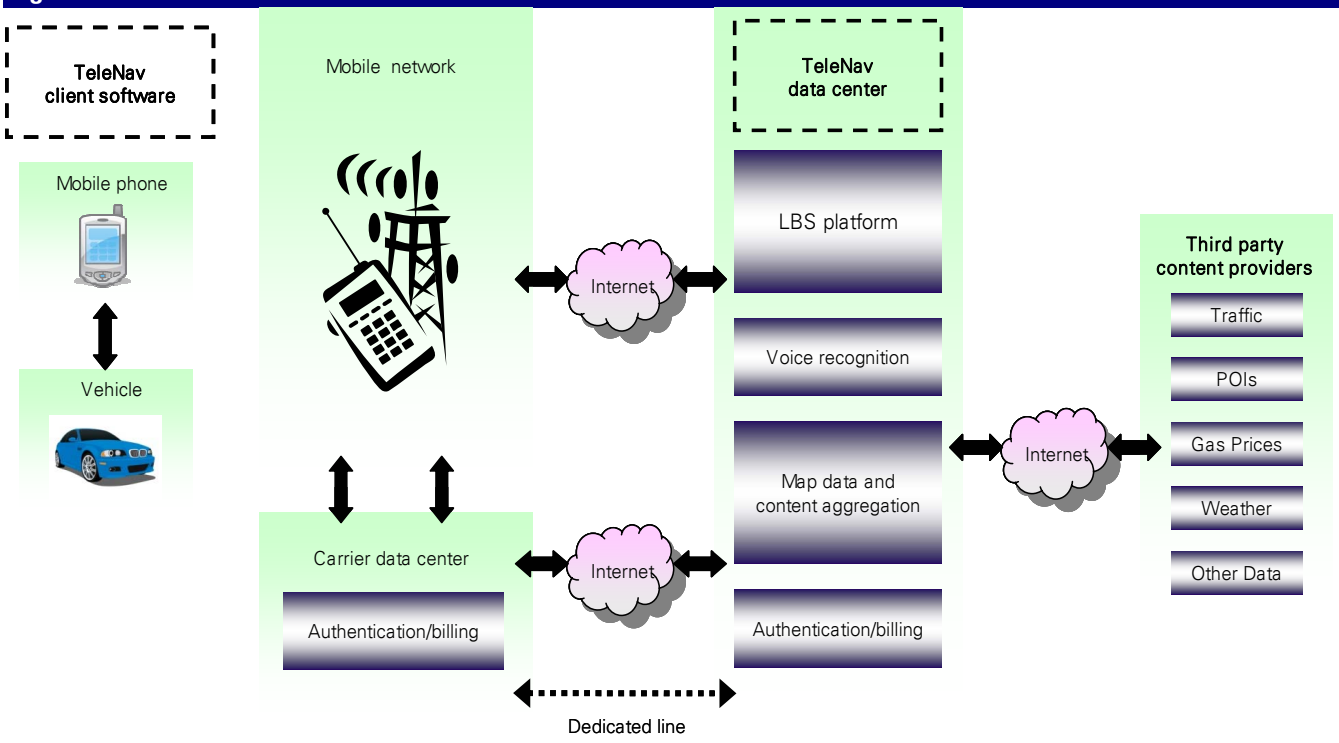
3. *Off-Board Navigation Solution:* Off-board navigation solution is essentially on-board in-dash device that connects to TeleNav's servers using drivers' Bluetooth cell phones or data connection in the car.

Whereboutz

TeleNav owns Whereboutz (www.whereboutz.com), a social networking site that enables its users to share videos, pictures and location online. All services including its iPhone application are available to users for free. Whereboutz differentiates itself by offering geo-tagged and private social networking services. This means that every time a user uploads a picture or a video, or posts a comment, it is tagged with the user's location. Whereboutz also allows its subscribers to keep their posts private, by allowing users to pick the people they want to share their post, pictures, videos and location with. Whereboutz can also host geo-tagged blogs, i.e. blogs tagged with location of the blogger. These blogs can also be restricted to a select group of people by the blog owner.

Platform and Architecture

Figure 13: Platform and Architecture



Source: Deutsche Bank and Company Data

Service Delivery Platform: TeleNav operates on a modular and scalable hosted service delivery platform (SDP). This allows TeleNav to respond to voice and data requests from clients by bringing multiple types of information together. Communication between TeleNav's SDP and client software installed on mobile phones or other GPS devices occurs on wireless carrier partners' networks. TeleNav's SDP can be scaled up by adding individual service elements, such as application servers or database nodes. The ease of capacity addition enables TeleNav to serve a growing end user base without disruption in service.

TeleNav's SDP is closely integrated with its wireless carrier partner's network. This integration with networks allows TeleNav to achieve efficient server load balancing and to minimize downtime. Using proprietary applications, TeleNav has successfully integrated its

SDP with various third-party content providers. This integration helps in the delivery of enhanced location based services.

Client software: TeleNav's client application is designed to support over 500 mobile phone models, operating on all major mobile operating systems. The client software is adaptable to evolving feature sets in new phones to create an improved user experience. It also works together with the service delivery platform to extract the latest information, data, and other services without the need to use phone memory for data-intensive services like map and POI storage. Requests made by end users are captured by the SDP interface using client software.

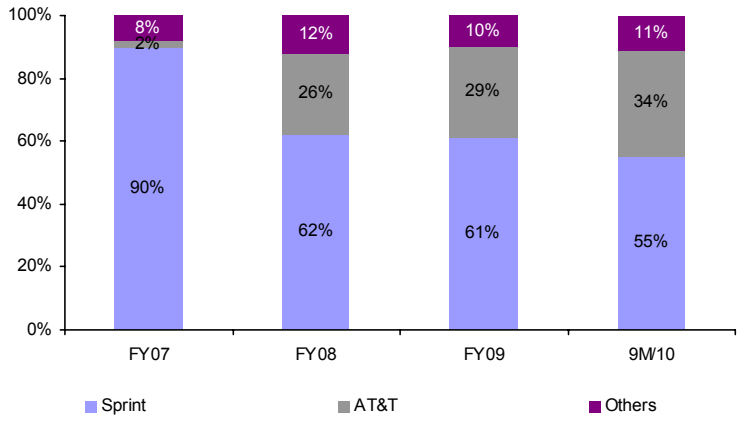
Client software can be adapted to offer a customized user interface to support preferred features and functions. TeleNav can wirelessly provide automatic updates of its service to mobile phones without the need to upload new client software. The client application caches the route and navigation information at the beginning as well as during the trip, so that in the event of a loss of or decline in connectivity during the trip, simplified navigation services can be provided.

Customers:

TeleNav primarily distributes and offers its LBS to end users through wireless carrier partners. These partners provide LBS to their subscribers either as a stand-alone service or as a bundle plan combining various voice and data services. TeleNav charges its wireless carrier partners a monthly subscription fee for each end user that subscribes to LBS. This subscription fee is either fixed or derived on a revenue sharing basis. TeleNav customers are primarily concentrated in the United States (97% revenue in 9M/10), with the remaining revenues coming from Asia and Europe.

TeleNav derives a substantial portion of its revenue from two wireless carrier partners, Sprint (55% of revenues in 9M/10) and AT&T (34% of revenues in 9M/10).

Figure 14: Customer Concentration



Source: Deutsche Bank and Company Data

Company Management:

- **HP Jin - Co-Founder, President and Chief Executive Officer**

Dr. Jin has served as TeleNav's president and a member of the board of directors since October 1999. Prior to TeleNav, Dr. Jin served as a senior strategy consultant at the McKenna Group and as a business strategy and management consultant at McKinsey. Dr. Jin was also a technical director at Loral Navigation Satellite Systems. Dr. Jin holds a B.S. and M.S. in Mechanical Engineering from the Harbin Institute of Technology and a Ph.D. in Guidance, Navigation and Control, with a Ph.D. minor in Electrical Engineering from Stanford.

- **Douglas Miller - Chief Financial Officer**

Mr. Miller has served as the CFO of TeleNav since May 2006. From July 2005 to May 2006, Mr. Miller served as the vice president and CFO of Longboard, Inc., and between October 1998 and July 2005, he held various management positions at Synplicity, Inc. Prior to that, Mr. Miller also served as chief financial officer of 3DLabs, and as a partner at Ernst & Young LLP. Mr. Miller is a CPA and also holds a B.S.C. in Accounting from Santa Clara University.

- **Robert Rennard - Co-Founder and Chief Technical Officer**

Dr. Rennard is a cofounder of TeleNav and has served as the company's chief technical officer since February 2002. From 1997 to 1999, Dr. Rennard held various positions at Cyberstar/Loral. Before that Dr. Rennard served as vice president of engineering at LINCSS/Loral and held the position of vice president at GPS Navigation Systems at Stanford Telecom and Newbridge Networks Corporation, as well as worked as an acquisition program manager for the US Air Force. Dr. Rennard holds a B.S. in Electrical Engineering from the University of Wyoming, an M.S. in Electrical Engineering from Ohio State University, and a Ph.D. in Aerospace Science from the Air Force Institute of Technology.

- **Y.C. Chao - Co-Founder and Vice President of Research and Development**

Dr. Chao is a cofounder of TeleNav and has served as its vice president of research and development since March 2006. From October 1999 to March 2006, Dr. Chao served as the senior director of technology. Between June 1998 and October 1999, he was a GPS software engineer at Snaptrack. Prior to that, Dr. Chao was a GPS receiver engineer at Trimble Navigation. He holds a B.S. in Mechanical Engineering from National Taiwan University, an M.S. in Aerospace Engineering from the University of Texas Aerospace Engineering, Center for Space Research and a Ph.D. in Aeronautics and Astronautics from Stanford University.

- **Salman Dhanani - Co-Founder and Vice President of Products and Marketing**

Mr. Dhanani is a cofounder of TeleNav in various marketing and product development roles since 1999. From January 1999 to November 1999, Mr. Dhanani served as a consultant at the McKenna Group. Prior to that, he served as an application engineer at Schlumberger Ltd. Mr. Dhanani holds a B.S. in Electrical Engineering from the University of Washington.

- **Hassan Wahla - Vice President of Business Development and Carrier Sales**

Mr. Wahla was promoted to vice president of business development and carrier sales in August 2009 and served as the executive director of business development from May 2005 to August 2009. From April 2003 to May 2005, Mr. Wahla served as a senior product manager at Nextel Communications, and between February 2002 and April 2003, he served as vice president of business development of Wireless Multimedia Solutions. Prior to that, from September 1999 to February 2002, Mr. Wahla served as director of business development at MicroStrategy, Inc. and served as a senior consultant at Maritime Power. He holds a B.S. in Industrial Engineering from Virginia Tech, an M.S. in Management from Stevens Institute of Technology and a Masters of International Affairs from Columbia.

Figure 15: Base Executive Compensation - 2009

Name and Principal Position	Salary	Stock Awards	Option Awards	Non-Equity Incentive Plan	All Other Compensation	Total
HP Jin Co-Founder, President and Chief Executive Officer	200,000	-	-	112,500	2,667	315,167
Douglas Miller Chief Financial Officer	200,000	-	49,700	51,533	6,958	308,191
Y.C. Chao Co-Founder and Vice President of Research and Development	170,000	-	-	36,888	600	$207,488
Robert Rennard Co-Founder and Chief Technical Officer	195,000	-	-	41,214	7,833	$244,047
Hassan Wahla Vice President of Business Development and Carrier Sales	141,250	-	6,644	56,353	6,864	$211,111

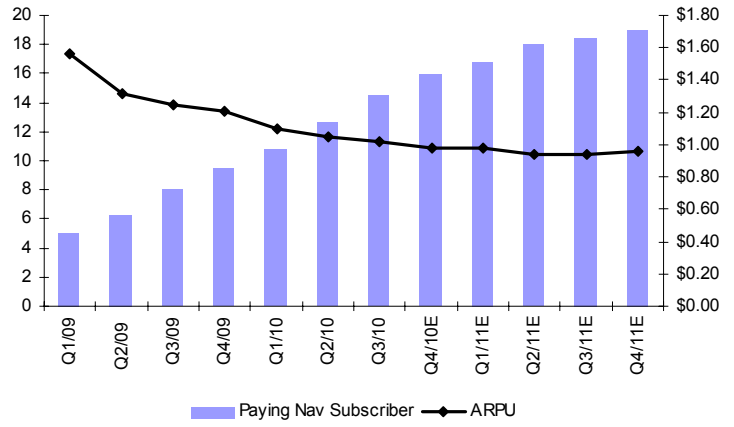
Source: Deutsche Bank and Company Data

Business Overview:

Revenue Stream

TeleNav has partnered with various wireless carriers to reach out to its end users. These partners offer TeleNav's LBS to their subscribers either as a standalone service or in a bundle with data or voice services. For customer subscription to LBS and activation for certain services, the partners pay TeleNav a monthly fee on a per-end-user basis. The subscription fee is either fixed or derived on a revenue sharing arrangement wherein a minimum fee per end user is defined. The monthly fee per end user is lower when the end user subscribes to a bundle plan compared to a standalone subscription. The revenue generated for any subscriber varies and changes over time.

Figure 16: Paying NAV subs vs. Monthly ARPU

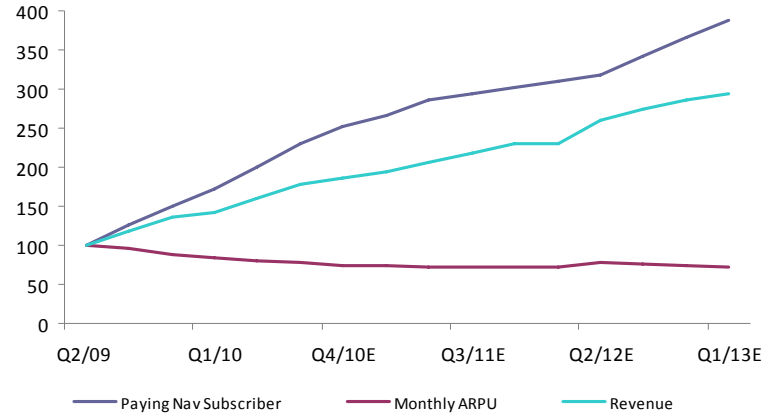


Source: Deutsche Bank and Company Data

Almost all of TeleNav's revenues are generated though subscription fees from wireless carrier partners; however, the company also offers its services directly to consumers through websites and application stores.

Revenue Trends

Figure 17: Indexed Revenue, ARPU and Subs



Source: Deutsche Bank and Company Data

Revenue has grown 82% from $8 million in 3Q09 to $15 million in 3Q10, primarily due to an increase in end users of TeleNav's services. This is driven by an increase in subscribers to Sprint's Simply Everything plans as well as growth in subscribers for AT&T Navigator. The average monthly subscribers have grown from 1.0 million in March 2008 to $14.5 million in March 2010.

Since demand for mobile phones is higher during the holiday season in November and December, activations in these months also increase. Therefore, the business has experienced seasonality during the past.

However, TeleNav has witnessed an 18% fall in ARPU from $1.24 in 3Q09 to $1.02 in 3Q10, mainly due to:

- An increase in end users accessing TeleNav services through 'white label' offerings launched by the wireless carrier partners. The monthly fee per end user on these offerings is lower compared to the branded offerings.
- Bundle offer plans also fetch a lower per end user fee.

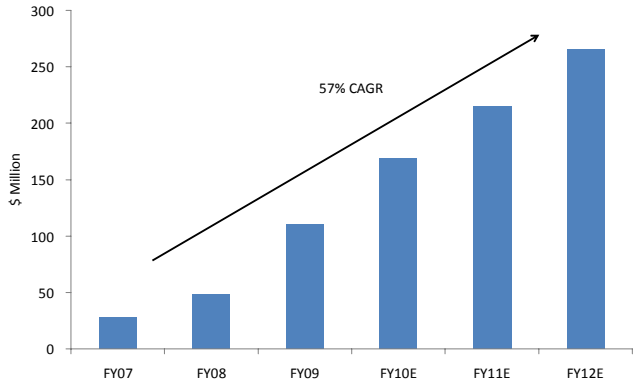
Nevertheless, the impact of decline in ARPU was offset by the increase in the number of average monthly paying end users.

Financial Overview:

Revenue Forecast

TeleNav's revenue increased 131% from 48 million in FY08 to 111 million in FY09. This is primarily due to the introduction of bundling plans by Sprint and the resulting increase in its subscriber base. This increase in end users has more than offset the decrease in ARPU witnessed during this period. Since navigation is increasingly becoming an important feature of smartphones, we expect the number of LBS end users for LBS to continuously increase. We have, therefore, modeled TeleNav revenues to grow at a CAGR of 57% over six years ($28 million in FY07 to $265 million in FY12E). We expect TeleNav's subscribers to increase from 3.1m in FY08 to 23m by FY12, with ARPU declining from $1.87 to $0.98.

Figure 18: Revenue Growth



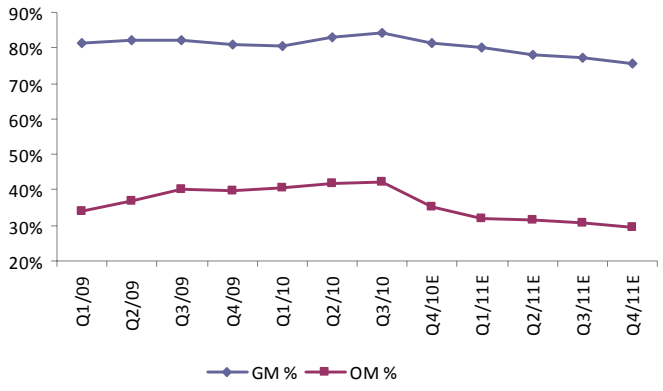
Source: Deutsche Bank and Company Data

Margin History

TeleNav's gross margins have hovered in the range of 78% to 84% in the past nine quarters. For 3QFY10, the company reported gross margins of 84%, up from 83% in 2QFY10. TeleNav's gross margins are affected by declines in ARPU and changes in usage rates. The company expects its gross margins to decline as ARPU declines and the cost of revenue increases in both absolute terms and as a percentage of revenue. Accordingly, we model gross margins to decline from 82% in FY10 to 78% in FY11 and 75% in FY12.

On the operating margin front, TeleNav's margins have risen substantially, from -9% in 1QFY08 to 42% in 3QFY10. The company expects operating expenses to increase as builds its infrastructure, add employees, and incur and other administrative costs. Accordingly, we model operating margins to decline from 40% in FY10 to 31% in FY11 and 29% in FY12.

Figure 19: NAV Gross & Operating Margins

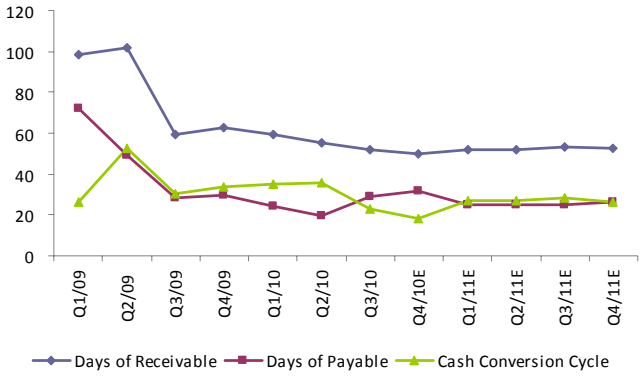


Source: Deutsche Bank and Company Data

Working capital:

TeleNav's cash conversion cycle has fluctuated over the years, increasing from 12 days in FY07 to 71 days in FY08 and then declining to 40 days in FY09. This was largely due to fluctuations in the receivables turnover, which increased from 48 days in FY07 to 109 days in FY08 and then declined to 78 days in FY09.

Figure 20: TNAV Cash Conversion Cycle



Source: Deutsche Bank and Company Data

Figure 21: DB TeleNav Model

TeleNav

Fiscal Year Ends June 30

($ thousands except per share data)

Deutsche Bank Securities 6/22/2010	9/09 Q1/10	12/09 Q2/10	3/10 Q3/10	6/10 Q4/10E	9/10 Q1/11E	12/10 Q2/11E	3/11 Q3/11E	6/11 Q4/11E	9/11 Q1/12E	12/11 Q2/12E	3/12 Q3/12E	6/12 Q4/12E	FY09	FY10E	FY11E	FY12E	CY08	CY09	CY10	CY11
INCOME STATEMENT																				
ARPU	$3.34	$3.21	$3.10	$2.94	$2.92	$2.82	$2.82	$2.88	$2.88	$3.07	$3.00	$2.95		$0.98	$0.96	$0.98				
Susbscribers	10,800	12,600	14,545	15,900	16,800	18,700	21,025	23,350	25,675	28,000	31,100	34,520		15,900	23,350	34,520				
Total Revenues	**$36,048**	**$40,503**	**$45,101**	**$46,746**	**$49,123**	**$52,260**	**$55,170**	**$58,220**	**$58,160**	**$65,900**	**$69,000**	**$72,350**	**$110,880**	**$168,398**	**$214,773**	**$265,410**	**$76,753**	**$140,651**	**$193,230**	**$237,450**
Cost of sales	(7,067)	(6,890)	(7,173)	(8,812)	(9,825)	(11,497)	(12,650)	(14,212)	(14,249)	(16,146)	(17,768)	(18,630)	(20,250)	(29,942)	(48,184)	(66,792)				
Gross Profit	28,981	33,613	37,928	37,934	39,299	40,763	42,520	44,008	43,911	49,755	51,233	53,720	90,630	138,456	166,589	198,618	61,753	114,921	155,924	180,193
Research & Development exp	(7,912)	(9,389)	(10,948)	(12,037)	(13,509)	(13,588)	(14,399)	(15,137)	(14,831)	(17,134)	(18,380)	(18,380)	(23,500)	(40,286)	(56,633)	(68,724)				
Sales & Mktg exp	(3,914)	(4,098)	(4,474)	(5,376)	(6,018)	(6,271)	(6,482)	(6,695)	(6,496)	(7,381)	(7,579)	(7,809)	(16,536)	(17,862)	(25,467)	(29,265)				
General & Admin exp	(2,559)	(3,104)	(3,484)	(3,973)	(4,175)	(4,442)	(4,689)	(4,949)	(5,176)	(5,799)	(6,228)	(6,346)	(8,302)	(13,120)	(18,256)	(23,549)				
Total Operating expenses	(14,385)	(16,591)	(18,906)	(21,386)	(23,702)	(24,301)	(25,571)	(26,781)	(26,504)	(30,314)	(32,186)	(32,535)	(48,338)	(71,268)	(100,355)	(121,538)				
EBITDA	15,634	18,183	20,325	18,020	16,978	17,864	18,563	18,764	18,825	20,775	20,388	22,451	44,682	72,162	72,169	82,439	22,544	59,413	73,187	76,927
Operating profit	14,596	17,022	19,022	16,548	15,597	16,462	16,948	17,227	17,407	19,441	19,047	21,185	42,292	67,188	66,234	77,080	22,076	57,214	67,629	71,023
Pro-Forma Operating profit	**14,911**	**17,617**	**19,617**	**17,143**	**16,647**	**17,512**	**17,998**	**18,277**	**19,082**	**21,116**	**20,722**	**22,860**	**42,799**	**69,288**	**70,434**	**83,780**	**22,465**	**58,415**	**70,919**	**76,473**
Income (loss) before income taxes	14,074	17,234	19,002	16,598	15,677	16,552	17,048	17,337	17,547	19,591	19,247	21,385	41,516	66,908	66,614	77,770				
Interest Income	(522)	212	(20)	50	80	90	100	110	140	150	200	200	(776)	(280)	380	690				
Provision for income taxes	(5,953)	(7,098)	(6,462)	(6,770)	(6,736)	(6,412)	(6,800)	(6,964)	(7,100)	(7,600)	(7,699)	(8,554)	(11,898)	(26,283)	(26,912)	(30,953)				
Net Income (loss)	8,121	5,640	12,540	9,828	8,941	10,140	10,248	10,373	10,447	11,991	11,548	12,831	29,618	36,129	39,702	46,817				
Net income (loss) -Proforma	8,303	5,990	12,942	10,180	9,539	10,783	10,879	11,002	11,445	13,016	12,553	13,836	29,980	37,415	42,204	50,849	17,389	32,287	43,445	46,341
EPS: Basic	$0.06	$0.49	$0.33	$0.25	$0.23	$0.26	$0.26	$0.26	$0.26	$0.29	$0.28	$0.30	$0.22	$0.63	$1.00	$1.13				
EPS: Diluted	$0.02	$0.20	$0.30	$0.23	$0.21	$0.23	$0.23	$0.23	$0.23	$0.26	$0.25	$0.28	$0.09	$0.32	$0.91	$1.03	$0.05	$0.27	$0.97	$0.96
Proforma EPS - Diluted	**$0.02**	**$0.16**	**$0.31**	**$0.24**	**$0.21**	**$0.23**	**$0.23**	**$0.24**	**$0.24**	**$0.27**	**$0.26**	**$0.29**	**$0.07**	**$0.26**	**$0.91**	**$1.06**	**$0.05**	**$0.22**	**$0.99**	**$1.06**
Free-cash flow	11,767	5,197	(4,223)	20,809	5,645	8,092	9,058	10,462	11,204	8,634	10,737	11,363		33,550	33,257	41,938				
Free-cash flow per share	**$0.03**	**$0.18**	**($0.10)**	**$0.49**	**$0.13**	**$0.19**	**$0.21**	**$0.24**	**$0.25**	**$0.19**	**$0.23**	**$0.25**		**$0.79**	**$0.76**	**$0.92**	**$0.15**	**$1.58**	**$8.14**	**$11.74**
Weighted average share - Basic	138,675	11,527	38,500	38,885	39,274	39,667	40,063	40,464	40,869	41,277	41,690	42,107	135,274	56,897	39,867	41,486				
Weighted average share - Diluted	341,042	28,833	42,300	42,723	43,150	43,582	44,018	44,458	44,902	45,351	45,805	46,263	332,685	113,725	43,802	45,580				
As % of total revenues																				
Total Revenues	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%				
Cost of sales	19.6%	17.0%	15.9%	18.9%	20.0%	22.0%	22.9%	24.4%	24.5%	24.5%	25.8%	25.8%	18.3%	17.8%	22.4%	25.2%				
Gross margin	80.4%	83.0%	84.1%	81.2%	80.0%	78.0%	77.1%	75.6%	75.5%	75.5%	74.3%	74.3%	81.7%	82.2%	77.6%	74.8%				
Research & Development exp	21.9%	23.2%	24.3%	25.8%	27.5%	26.0%	26.1%	26.0%	25.5%	26.0%	26.6%	25.4%	21.2%	23.9%	26.4%	25.9%				
Sales & Mktg exp	10.9%	10.1%	9.9%	11.5%	12.3%	12.0%	11.8%	11.5%	11.2%	11.2%	11.0%	10.8%	14.9%	10.6%	11.9%	11.0%				
General & Admin exp	7.1%	7.7%	7.7%	8.5%	8.5%	8.5%	8.5%	8.5%	8.9%	8.8%	9.0%	8.8%	7.5%	7.8%	8.5%	8.9%				
Total Operating expenses	39.9%	41.0%	41.9%	45.8%	48.3%	46.5%	46.4%	46.0%	45.6%	46.0%	46.6%	45.0%	43.6%	42.3%	46.7%	45.8%				
EBITDA Margin	43.4%	44.9%	45.1%	38.5%	34.6%	34.2%	33.6%	32.2%	32.4%	31.5%	29.5%	31.0%	40.3%	42.9%	33.6%	31.1%				
Operating margin	40.5%	42.0%	42.2%	35.4%	31.8%	31.5%	30.7%	29.6%	29.9%	29.5%	27.6%	29.3%	38.1%	39.9%	30.8%	29.0%				
Income (loss) before income taxes	39.0%	42.5%	42.1%	35.5%	31.9%	31.7%	30.9%	29.8%	30.2%	29.7%	27.9%	29.6%	37.4%	39.7%	31.0%	29.3%				
Net income margin	22.5%	13.9%	27.8%	21.0%	18.2%	19.4%	18.6%	17.8%	18.0%	18.2%	16.7%	17.7%	26.7%	21.5%	18.5%	17.6%				
Net income margin - Proforma	23.0%	14.8%	28.7%	21.8%	19.4%	20.6%	19.7%	18.9%	19.7%	19.8%	18.2%	19.1%	27.0%	22.2%	19.7%	19.2%				
% y-o-y change																				
Total Revenues	67.5%	60.4%	51.1%	36.5%	36.3%	29.0%	22.3%	24.5%	18.4%	26.1%	25.1%	24.3%	130.7%	51.9%	27.5%	23.6%				
Cost of sales	75.7%	54.7%	35.4%	36.0%	39.0%	66.9%	76.4%	61.3%	45.0%	40.4%	40.4%	31.1%	78.3%	47.9%	60.9%	38.6%				
Gross Profit	65.6%	61.6%	54.5%	36.6%	35.6%	21.3%	12.1%	16.0%	11.7%	22.1%	20.5%	22.1%	146.9%	52.8%	20.3%	19.2%				
Research & Development exp	70.4%	70.8%	78.4%	66.6%	70.7%	44.7%	31.5%	25.8%	9.8%	26.1%	27.6%	21.4%	71.7%	71.4%	40.6%	21.3%				
Sales & Mktg exp	0.9%	1.0%	9.4%	19.3%	53.7%	53.0%	44.9%	24.5%	8.0%	17.7%	16.9%	16.6%	24.9%	8.0%	42.6%	14.9%				
General & Admin exp	58.3%	62.3%	47.7%	64.6%	63.2%	43.1%	34.6%	24.5%	24.0%	30.6%	32.8%	28.2%	66.3%	58.0%	39.1%	29.0%				
Total Operating expenses	41.9%	44.7%	50.2%	51.2%	64.8%	46.5%	35.3%	25.2%	11.8%	24.7%	25.9%	21.5%	51.4%	47.4%	40.8%	21.1%				
EBITDA	99.7%	94.8%	69.9%	32.2%	8.6%	-1.8%	-8.7%	4.1%	10.9%	16.3%	9.8%	19.6%	612.0%	61.5%	0.0%	14.2%				
Operating profit	98.3%	82.3%	59.0%	21.4%	6.9%	-3.3%	-10.9%	4.1%	11.6%	18.1%	12.4%	23.0%	784.6%	58.9%	-1.4%	16.4%				
Income (loss) before income taxes	88.4%	81.8%	68.8%	24.8%	11.4%	-4.0%	-10.3%	4.5%	11.9%	18.4%	12.9%	23.3%	766.5%	61.2%	-0.4%	16.7%				
Net Income (loss)	63.2%	-17.8%	68.4%	-4.9%	10.1%	79.8%	-18.3%	5.5%	16.9%	18.3%	12.7%	23.7%	543.0%	22.0%	9.9%	17.9%				
Net income (loss) -Proforma	64.9%	-13.9%	72.1%	-2.8%	14.9%	80.0%	-15.9%	8.1%	20.0%	20.7%	15.4%	25.8%	494.4%	24.8%	12.8%	20.5%				
EPS: Diluted	58.6%	845.9%	1222.5%	640.7%	770.1%	18.9%	-21.5%	1.4%	12.3%	13.6%	8.3%	18.9%	523.3%	256.8%	185.3%	13.3%				
Proforma EPS - Diluted	21.4%	734.6%	1547.6%	915.6%	1024.6%	48.1%	-23.4%	-1.9%	17.3%	17.3%	11.5%	20.9%	333.8%	285.1%	248.9%	16.8%				
Free-cash flow	-	-	-	-	-52.0%	55.7%	-314.5%	-49.7%	98.5%	6.7%	18.5%	8.6%			-0.9%	26.1%				
Free-cash flow per share	-	-	-	-	279.2%	3.0%	-306.1%	-51.7%	90.7%	2.5%	13.9%	4.4%			-4.3%	21.2%				

Source: Deutsche Bank and company data

Valuation

Initiate with a $12 price target

Our valuation is based on a discounted cash flow analysis using a 12.5% discount rate and a 3% growth rate. We obtained this rate using a weighted average cost of capital in conjunction with the capital asset pricing model, adjusted for Cisco's capital structure. Our growth rate is determined by comparison with other companies in the industry, the overall industry growth rate, and overall economic growth. Our discount rate is derived from the CAP Model using a weighted average cost of capital. The discount rate is premised on a risk free rate of 5.5%, a country premium of 5% and a beta of 1.4. The growth rate is based on our estimate of long-term economic growth.

We think of TeleNav as a SaaS company that happens to offer navigation services. As such, we believe the valuation should be bounded at the high end by SaaS leaders such as Salesforce.com and Concur, and at the low end by navigation hardware companies like Garmin and TomTom. PNDs are flat-to-declining hardware businesses and not good comps for the SaaS-based TeleNav.

TeleNav's high growth, solid margins a sticky and scale-driven business should deserve a premium. However, TNAV is in a business model transition for which we apply a discount. Near-term, recurring subscriber fees (e.g., AT&T Navigator for $10 per month) are moving to bundled services (ala Sprint), which have driven most of the recent growth, but also pushed down ARPU. Mid-to-longer-term, free offerings from Google, Nokia, Microsoft and others could further transition the business to "free-to-subscriber", paid for by new revenue streams such as advertising and m-commerce. The first transition is already in progress, but it's too early to accurately model the second transition.

Our $12 price target embeds a CY11 P/E of 11x, in line with the PND vendors but at a discount to a broader universe of consumer electronics stocks. TeleNav is currently trading at an CY11 P/E of 8x, a discount to PND vendors 9x and the broader universe of 14x.

We value our SaaS coverage on a cash flow basis using an EV/uFCF multiple, since we believe unlevered free cash flows are the best reflection of a subscription based business model. TNAV is currently trading at 6.4x on CY11 estimates vs. our SaaS coverage of a dozen companies at 25x. The $12 PT would imply an EV/FCF multiple of 14.3x, still at a steep discount to the peer group.

Risks

Customer concentration

TeleNav primarily distributes and offers its LBS to end users through wireless carrier partners. These partners provide LBS to their subscribers either as a stand-alone service or as part of a bundle plan. TeleNav derives approximately 90% of its revenue from two wireless carrier partners, Sprint (55% of revenues in 9M/10) and AT&T (34% of revenues in 9M/10). A high concentration of customers and absence of long term exclusivity contract are risk factors for TeleNav.

Intense competition

TeleNav operates in an intensely competitive industry and faces stiff competition from larger companies with higher customer bases and sounder financial, technical, marketing and sales & distribution resources. Developments like Google's decision to offer free, voice-guided, turn by turn navigation to Android based mobile devices and Nokia's offering of maps on its smartphones to facilitate free turn by turn navigation could have negative implications for TeleNav's business operations.

The free offering of LBS to subscribers may also adversely affect TeleNav's relationship with wireless carrier partners. They may decide to terminate relation with TeleNav, not market its services aggressively, or reduce subscription fees. Any such developments could hamper profitability, increase sales and marketing expense, and damage market share.

Dependence on carrier partners for growth

TeleNav is dependent on its carrier partners for marketing and distribution of its LBS. TeleNav relies on its wireless carrier partners to promote GPS enabled mobile phones that are pre-loaded with TeleNav's client software.

Shift in pricing plans

TeleNav offers LBS to customers through direct subscription or bundled plans offered by its carrier partners. Though direct customer subscriptions result in higher ARPU, there has been a significant shift in TeleNav's customer base using its LBS through bundled service plans from wireless carriers. Growth of bundle service subscribers in the customer mix has lead to decline in ARPU from $5.49 in 2Q08 to $1.02 in 3Q10. Though bundled services gives TeleNav the scale, they lead to decline in ARPU, which, if not offset through new revenue streams and economies of scale, could lead to a decline in margins.

Appendix 1

Important Disclosures

Additional information available upon request

Disclosure checklist			
Company	**Ticker**	**Recent price***	**Disclosure**
TeleNav	TNAV.OQ	8.49 (USD) 21 Jun 10	1,2,7

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

Important Disclosures Required by U.S. Regulators

Disclosures marked with an asterisk may also be required by at least one jurisdiction in addition to the United States. See "Important Disclosures Required by Non-US Regulators" and Explanatory Notes.

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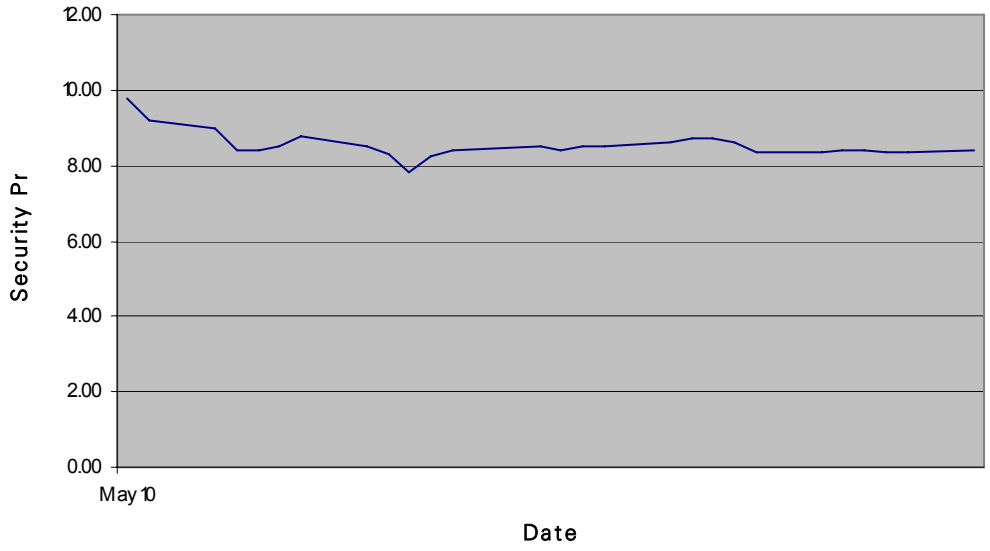
Historical recommendations and target price: TeleNav (TNAV.OQ)

(as of 6/21/2010)



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.

Sell: Based on a current 12-month view of total share-holder return, we recommend that investors sell the stock

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2. Ratings definitions prior to 27 January, 2007 were:

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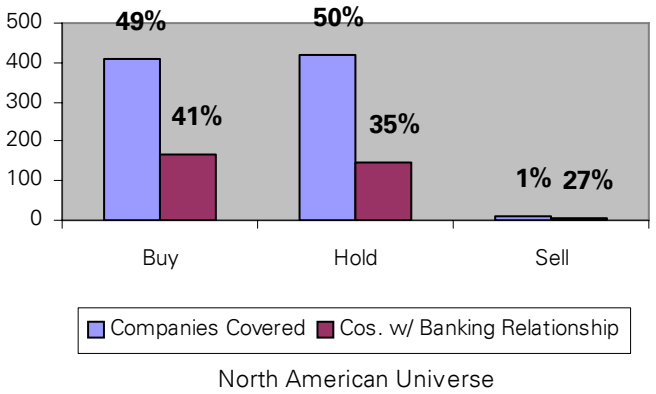
Hold: Expected total return (including dividends) between -10% and 10% over a 12-month period

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

Equity rating dispersion and banking relationships



North American Universe

Regulatory Disclosures

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