Zacks Small-Cap Research

April 25, 2011
Ken Nagy, CFA

www.zacks.com 111 North Canal Street, Chicago, IL 60606

Polar Wireless (BCDI-OTC)

BCDI: Polar Signs Deals and Builds Infrastructure- NEUTRAL

Current Recommendation	**Neutral**
Prior Recommendation	N/A
Date of Last Change	04/05/2011
Current Price (04/22/11)	$0.50
Target Price	**$0.95**

OUTLOOK

Polar Wireless is a mobile virtual network operator (MVNO), which intends to monetize its proprietary technology. The firm's SIM cards work in conjunction with current providers to eliminate roaming charges without the hassle of changing phone numbers or customer behavior. Fast growing mobile phone technology combined with the uptick in global travel has made the world a very small space, however high costs and hassles still exist. We feel the firm is in the sweet spot of this high growth area. We like the firm's business model, yet caution investors the firm is in cash burn mode and will most likely have to do a capital raising event soon.

SUMMARY DATA

52-Week High	**$1.17**
52-Week Low	**$0.10**
One-Year Return (%)	**-12.6**
Beta	**N/A**
Average Daily Volume (sh)	**35,307**
Shares Outstanding (mil)	**68**
Market Capitalization ($mil)	**$45**
Short Interest Ratio (days)	**N/A**
Institutional Ownership (%)	**N/A**
Insider Ownership (%)	**N/A**
Annual Cash Dividend	**$0.00**
Dividend Yield (%)	**0.00**
5-Yr. Historical Growth Rates	
Sales (%)	**N/A**
Earnings Per Share (%)	**N/A**
Dividend (%)	**N/A**
P/E using TTM EPS	**N/A**
P/E using 2011 Estimate	**N/A**
P/E using 2012 Estimate	**6.3**
Zacks Rank	**2**

Risk Level	**High**
Type of Stock	**Telecom/Wireless**
Sector	**Technology**

ZACKS ESTIMATES

Revenue
(in millions of $)

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2010	0 A	0 A	0 A	0 A	0 A
2011	1.0 E	1.5 E	2.0 E	3.0 E	7.65 E
2012					22.90 E
2013					50.00 E

Earnings per Share
(EPS is operating earnings before non recurring items)

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2010	$0.00 A	$0.00 A	$0.00 A	$0.00 A	$0.00 A
2011	$0.00 E	$0.00 E	-$0.01 E	-$0.01 E	-$0.02 E
2012					$0.08 E
2013					$0.28 E

* Firm had a net loss in 2010 of (94,080)

© Copyright 2011, Zacks Investment Research. All Rights Reserved.



Since our initiation report Polar has been on a tear, signing distribution agreements in Pakistan, the UAE, and North America, implementing a back up call center, and completing system build outs. Our estimates and outlook remain unchanged. Polar could see revenues in 1-2 quarters from the distribution agreements.

…Distribution Agreements

On April 7, 2011 Polar Wireless announced that it had signed a sales and support services agreement with Roam4Less which provides for the distribution of the Polar Roaming Chip to Roam4Less corporate clients. Roam4Less is a leading provider of travel communications products to the North American corporate market.

On April 12, 2011 Polar announced an exclusive distribution agreement with Hasan Associates Limited (Known as "HAL") of Karachi, Pakistan, pursuant to which HAL has been granted exclusive distribution rights for the Polar SIM in Pakistan and the United Arab Emirates. HAL has a strong presence in both countries and will provide full marketing and distribution services to its existing territories. The Pakistani market has seen explosive growth going from approximately 300,000 mobile telephone users in 2000 to over 90 million today. According to TechLahore, the average Pakistani user recycles his phone every year at a cost of approximately US$100 and total cell phone spending exceeds US$2 billion annually. Cell phone usage in the UAE has reached 65% saturation of the population or approximately 2.3 million users with average use estimated between 3 and 4 hours daily.

…Updates to Infrastructure

On April 14, 2011 the firm announced that the company will introduce a 24/7 customer help service to augment its voice, data and SMS center in Moscow. While initially focused on the Russian and Ukrainian markets, the service will be expanded in the future to accommodate broader distribution to former CIS countries in Eastern Europe. Each country will have a direct number to simplify contact with the call center. The decision to introduce the call center facility is designed as a back-up measure to further ensure effective customer service.

On April 19, 2011 Polar announced plans to open a data center in Frankfurt, replacing the Amsterdam data center. Frankfurt will act as a redundant data center in the European and Asian regions for voice,

data and SMS messaging and serve as a secondary data center to Polar's global site in Toronto, Canada. The Frankfurt center will operate in partnership with Global Crossing and Neutel Communications. Global Crossing, with 50 locations worldwide, will provide backend services as well as IP-based solutions to Polar Wireless. Neutel Communications is a global traffic carrier offering voice and data transmission over IP. The company provides transmission services to major Tier 1 companies and operates switches in Frankfurt, London and New York. The Frankfurt center will establish a secure server facility for Europe, Eastern Europe, and Asia. It will be capable of managing multiple million users simultaneously with interconnections and long distance services.

…Migration

On April 20th 2011 the company issued a press release to announce it has completed an important part of its system build-out with the successful migration of its Global Data Center to the Bell Canada Data Center, a world class SAS70 and CICA5900 installation backed by a robust, secure and highly reliable network. This includes advanced monitoring systems, leading edge hosting solutions, and development of next generation solutions such as cloud computing. This migration to the Bell Canada center will provide Polar Wireless with the long term ability to effectively manage up to 1 million users for their voice, data and SMS requirements. The center will also serve as host to the company's secondary sites such as Moscow and Frankfurt.

INVESTMENT THESIS

- Mobile phones have grown exponentially in recent years and projected growth rates in the years ahead will be above average.
- Worldwide travel has experienced a robust turnaround since the global recession of 2009. Corporate travel as well as tourism looks strong over the next several years.
- Roaming charges are still a major issue that haunts the estimated 300 million people who cross borders each year. These charges are expensive, negotiated on a carrier by carrier basis, and often unknown to the consumer.
- Polar Wireless technology attempts to solve the roaming charge problem with a one-time insertion of a micro thin wafer SIM.
- Polar Wireless is the only mobile roaming service that doesn't require the user to change behavior.
- The Pilot Program in Russia is underway and ahead of schedule.

OVERVIEW

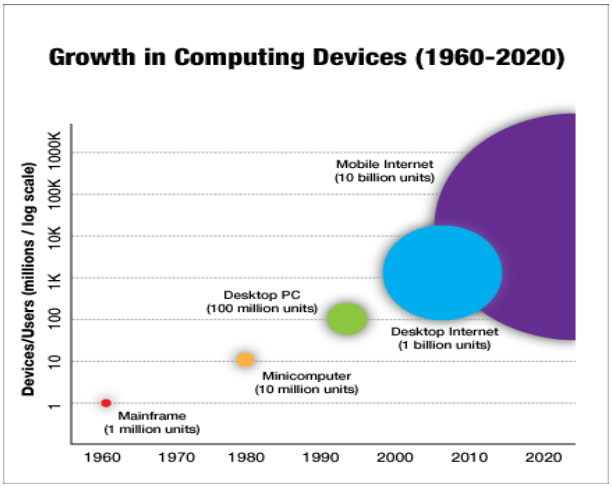
Polar Wireless is a mobile virtual network operator (MVNO) that works in conjunction with current providers. The firm’s technology eliminates roaming charges while offering competitive calling card rates to its subscribers.

Polar’s chip is a multifunctional miniature electronic device for mobile phones. It's an additional thin SIM card to be inserted into the user's cell phone in conjunction with the main, mobile operator's SIM card. Due to its thin, single-chip design, the Polar Wireless chip is compatible with most GSM and even some CDMA cell phones.

Backdrop of Growth

Over the past several years several of the key technologies in the mobile computing industry have matured and improved. Several key technologies have been standardized such as Windows mobile operating systems, Wifi wireless local area networks, and the building out of nationwide wireless data networks.

Market Research Firm IDC estimates units shipped by makers of smartphones globally would increase an estimated 49.2% in 2011. The smartphone sector will represent the area of largest growth in the cell phone market. According to IDC, shipments of smartphones in 2011 are expected to be in the range of 450 million units. This figure represents an increase of 140 million smartphones over the sales total from 2010. Last year's high market growth was due in part to pent-up demand from a challenging 2009, when many buyers held off on mobile phone purchases.



Source; Minneapolis News

Travel Ticks Up

According to the World Travel & Tourism Council (WTTC), Over the next ten years the global Travel & Tourism economy will grow by 4.3% per year, implying its share of the global economy will rise to just over 10%.

Breaking that down to world regions, Asia is set to see growth of 4.2% as China will remain the main engine of global growth over the next decade. India will enjoy a robust recovery following mild slowdown in 2009 whereas Japan's real GDP growth was forecast to increase gradually, reaching a cyclical peak in 2013. (all bets are off after the earthquake, tsunami and nuclear scare)

Europe's expected growth is a bit more muted. This region will only manage a 1.4% growth this year (down 0.2%). Looking at some key countries in this region, the United Kingdom's travel & tourism economy GDP will probably show a contraction when the final 2010 numbers are in, before growth starts to accelerate from 2011, with the 2012 Olympics set to boost activity. France and Spain suffered contraction in 2010 with no real growth apparent until 2012 and Germany's strong visitor arrival growth will unfortunately be offset by weak outlook for investment.

Looking at the USA, despite sharp growth in foreign visitor arrivals, recovery in 2010 was offset by very weak investment and business travel, but long-term growth prospects for domestic (2.1 billion trips in 2010, of which 50% overnight) and inbound arrivals are optimistic.

Demand for business travel has steadily increased over the past 15 months, bringing renewed vitality—but also increased price pressure—to the business travel marketplace. As demand continues to strengthen and new hotel openings stall, U.S. hotel rates in 2011 will increase 4.2 percent year over year, with a 6.1 percent increase in the upper upscale segment and a 7.4 percent increase in the luxury tier, according to STR forecasts. The hospitality research firm said increases would accelerate in 2012, with hikes of 6.8 percent in U.S. average daily rates, 8.4 percent in the upper upscale tier and 11.5 percent in the luxury tier.

Looking in on Marriott International's fourth-quarter earnings call, president and COO Arne Sorenson said smaller markets are beginning to see the rate growth that already began in gateway cities. "We've got occupancy growth in most markets in the United States, including secondary and tertiary markets," he said. "The rate growth is a bit more modest than it is in the primary markets at the moment, but it will come."

Combine the growth in mobile phones with the number of people and businesses crossing borders (company estimates 800 million, 300 million cell users) and the potential of a roaming charge solution becomes apparent. The global roaming market according to market research firm Informa, is estimated to be a $23 billion dollar worldwide market, with 300 million roamers using approximately 22 billion calling minutes. This market is set to grow 70 billion minutes likely handcuffing international business travelers, long distance callers, international students, and foreign nationals.

How Roaming Charges Work and Why it's so Expensive

A call consists of two parts—the voice or data transmission, and then an accompanying signal transmission. Only if you're overseas, that signal transmission travels a lot farther than the rest of the call. Say you're in London, and you're meeting a friend for dinner. You need to call him. If you're using a British-bought phone, this is what happens: Your phone will transmit a signal transmission to your carrier, which includes information about the phone, length of call, destination number and geographical location. This signal is passed along to the recipient's phone as well, to identify the caller. Your phone will then transmit a voice signal to your carrier, which is then routed to the recipient's carrier, and then to their phone. The call is connected, the carrier knows how much call time you've used, and you're charged according to your contract—the one you signed when you got your phone, or a special one you agreed to before travel.

But let's say you call your friend in London from your *American* phone, on, say, AT&T. Here's what happens then: Your phone transmits a signal transmission—location, length, destination—to the local carrier of your provider's choice. The local carrier passes the signal transmission overseas to AT&T, which passes it back to your recipients British carrier, and then to his phone. The voice signal travels straight from your new British carrier to your recipient's British carrier.

International roaming is built on a shoddy patchwork of contracts, negotiated on a carrier-by-carrier basis, totally out of view. If an American carrier wants to make sure its customers can use their phones all over the world, they need to ink separate contracts with dozens—if not hundreds—of carriers across the globe. If you place a call in another country, what you pay is based almost entirely on what the native carrier has decided to charge your carrier rent access. **(Source Gizmodo)**

From a business standpoint it makes sense for a foreign carrier to gouge American carriers and consumers. It's just good business, and adds up to serious money. By the time your carrier has finished paying its foreign partner, they already *look* like they're ripping you off, so there really isn't a whole lot of room to charge customers more. You carrier makes money on your roaming calls, sure, but they're not the reason it hurts so much. Not directly.

It gets worse: The one force that should keep prices down—competition—often doesn't exist. Many countries have highly regulated or monopolistic wireless providers, meaning that an American carrier looking for a partner might just have one or two choices. Throw in the fact that said country might not support the America carrier's wireless standard, like Verizon and Sprint's CDMA or AT&T and T-Mobile's GSM, and there aren't many options. Imagine a foreign carrier looking for a partner in the US. If it's a GSM carrier, it'll have to settle on AT&T or T-Mobile. That's just *two choices,* in one of the biggest countries on Earth.

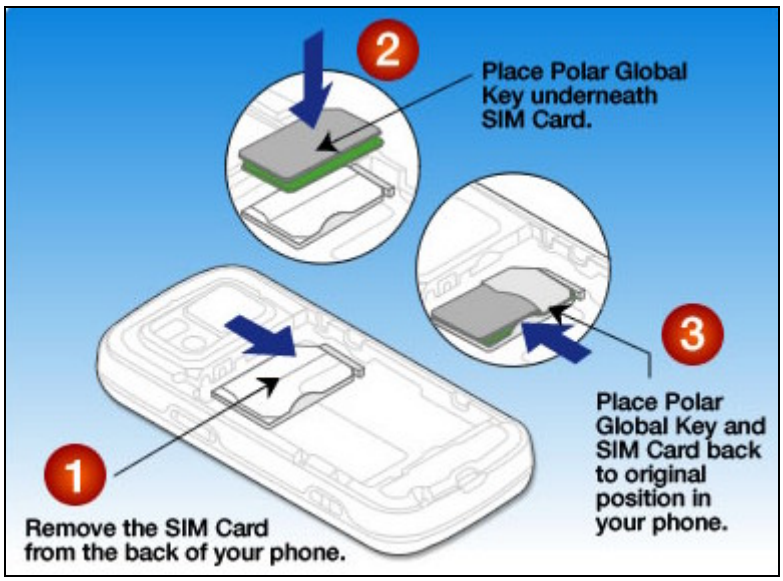
The way this balances out, naturally, is with American carriers charging sky-high fees to foreign carriers for *their* visitors. (If a UK carrier wants to charge $2 a minute to route a call from an American phone, then they shouldn't expect a better deal when the tables are turned.) But while this provides broad balance for the businesses, you, Phone-Using Human, are only interested in the half of the arrangement that concerns you. So from a customer's standpoint, we lose all the time.

Eliminating Roaming

This solution requires an easy, one-time insertion of a micro thin wafer SIM (the "Global Key") between the carrier SIM and the handset. The Global Key is invisible while the user is in the home market and only activates when the user travels outside the home network. While outside the home network, the Global Key activates, allowing friends, family and associates to call the current mobile number which will ring customers wherever they are in the world. Additionally, the traveling customer can seamlessly make and receive calls in every country without paying his or her mobile operator back home. In effect, every use of the customer's mobile device outside the home network becomes local.

Polar's micro SIM is less than .45mm thick, and slides behind the primary SIM. The chip enables subscribers to travel the world and take advantage of affordable rates along with free incoming calls in over 40 countries. Every call becomes local.

We feel the key is that consumer behavior does not have to change. Customers will continue dialing directly with the cell phone as they usually do. No need to change the user habit, no need to learn new buttons and menus, no need to dial local access numbers and pin codes. According to the number dialed, Polar Wireless will choose the most cost effective voice route to place the call through.



Once it is in, How Does it Work?

The Customer dials the number (or selects it from contact / recent calls list) on his cell phone. Polar Wireless recognizes the call placed and automatically sends an electronic order over GPRS or SMS to the switching system. In about a second, Polar Wireless connects the customer to the destination. This gives users a full mobile service (voice, SMS, MMS, data) along with savings of 60% - 80% while roaming.

The Pilot
The firm's pilot launch targeted Russia with 50,000 SIMs. This included marketing partnerships with Euroset (which can be thought of as the Russian Best Buy) and Bonus (marketer). The launch was national and is expected to generate sales volumes in excess of the initial production of 50,000 SIM's.

On February 8th 2011 Polar announced the execution of an agreement with SKT-Project in Russia. SKT will act as a general distributor of Polar's products and will represent Polar in the territories of the Russian Federation , ex-USSR countries, and Eastern Europe (Azerbaijan, Armenia, Belarus, Bulgaria, Bosnia and Herzegovina, Hungary, Kazakhstan, Kyrgyzstan, Macedonia, Moldova, Poland, Russia, Romania, Serbia, Slovakia, Slovenia, Tajikistan, Turkmenistan, Uzbekistan, Ukraine, Croatia, Czech Republic). SKT-Project is responsible for providing technical assistance, customer support, financial services and logistics for Polar in the above-mentioned territories. These combined territories currently represent over 350 million wireless subscribers, with forecasts showing this figure to exceed 400 million wireless subscribers in 2014.

Milestones
As of today the firm has Alpha tested the Polar 1 SIM and confirmed it is ready for commercial launch. The first 15,000 SIMs have been shipped to Russia. The firm has also,

- Set up a production line capable of producing 300,000 SIMs per year. This can be scaled quickly for additional orders.
- Completed a custom built operating system for reporting, billing and tracking each Polar SIM account.
- Integrated multiple payment options such as PayPal, Credit Cards and Webpay.
- Completed negotiations with a major distribution partner.

What's Next?
Over the next 18 months the firm has a number of milestones it wishes to hit. Polar will attempt to complete deals with additional distributors in Pakistan, Israel, Estonia, Ukraine, North America and Mexico as well as integrate with North American Carriers to provide multiple IMSI solutions. Deals have been reached with HAL (Pakistan, UAE) and Roam4Less (North America).

Additionally the firm will

- Attempt to sign up additional carriers in major markets. (Russia, Israel, North America)
- Add several departments.
- Complete updates to infrastructure.

Company History and Management
Polar Wireless began in 2008 under the name Barricode, a public OTC company. Barricode has since changed its name to Polar WIreless Corp. to reflect its decision to alter strategic focus. The Company intends to refocus its direction to capitalize on the growing global mobile market to supply inexpensive, easy to use mobile roaming and calling card functionality.

CEO Kelly O'Dea

- Highlighted in a Harvard Business School case study as a "global marketing pioneer, business builder and change leader", Mr. O'Dea has advised top management clients in such companies as IBM, Samsung, Microsoft, Lenovo, Compaq, Ford, Jaguar, Fujitsu, Boeing, AT&T, PepsiCo and Unilever. He has managed some of the world's top marketing & communications firms covering over 125 countries. Heavily involved in technology and mobile market, including two prior successful start-ups. Resume includes:

- President: Foote, Cone and Belding Worldwide (#3 globally, an IPG company)
- President, Global Client Services, Ogilvy & Mather Worldwide (#5 globally, a WPP company)
- Chairman, Thunderbird Graduate School of Global Management (#1 globally)
- MBA with Distinction, Thunderbird Graduate School of Global Management

CTO – Vlad Allen

- Vlad Allen brings over 20 years of High Tech experience to the company. Vlad spent more than 16 years as a developer and a systems architect with management responsibility for hundreds of developers and specialists.
- As CTO with OpenX technologies, VP of Products and Services with Healthnet Inc and CTO with Froggytalk, Mr. Allen produced a record for delivering high end systems serving more than 15 million patients and hundreds of businesses with quality production systems.

In addition the board currently consists of three independent outside directors.

Jim Schroer

- Former CEO of Carlson Marketing, a global company with 2200 employees in over 15 countries specializing in the loyalty relationship industry. Prior to Carlson Marketing, Mr. Schroer was:
- Global head of marketing and sales at Daimler Chrysler, overseeing the marketing efforts of a $68 billion organization worldwide.
- VP / Global Marketing for Ford Motor Company
- EVP Sales & Marketing, RJR Nabisco
- VP and Lead Partner, Booz Allen & Hamilton
- MBA, Harvard Business School

Paul Schaut

- Former CEO of Engage, previously a $12 Billion market cap NASDAQ Company.
- Mr. Schaut brings a global management and governance perspective and leadership role to the board from a vast array of commercial experience in the public markets, having led acquisitions from $6 million to $2.4 billion in his previous roles as CEO of several companies.

Shane Carroll

- Founder of itravel2000, Canada's largest online travel company founded in 2000.
- Mr. Carroll assisted in growing itravel2000 to over $300 million in revenue before selling it to a UK travel conglomerate.

INDUSTRY OUTLOOK

INDUSTRY OUTLOOK - Positive

The outlook for the telecommunications equipment industry is Positive. Fundamentals bottomed in 2009 and the top-lines of the group have moved higher on signs of a sustained economic recovery. Long-term growth prospects for the group are favorable.

Gartner has raised its outlook for 2011 global IT spending from its previous forecast of 3.5% growth. In 2010, the IT industry performed better than Gartner's previous forecast of 3.2% growth. Gartner analysts said currency exchange rate fluctuations have continued to affect the U.S. dollar-denominated forecast. Of the 2.2 percentage point increase in IT spending growth in 2010, 1.6% is attributable to the recent devaluation of the U.S. dollar against other currencies.

Aided by favorable U.S. dollar exchange rates, global IT spending growth is expected to exceed 5% in 2010, but a similar level of growth in 2011 — while forecast — is far from certain, given continued macroeconomic uncertainty. While the global economic situation is improving, the recovery is slow and hampered by a sluggish growth outlook in the important mature economies of the U.S. and Western Europe. There are also growing concerns about the ability of key emerging economies to sustain relatively high growth rates. Nevertheless, as well as a fundamental enabler of cost reduction and cost optimization, investment in IT is seen increasingly as an important element in business growth strategies. As the global economy repairs itself in coming years, we are optimistic about continued healthy spending on IT.

The telecom equipment market is poised for the strongest growth in 2011; with worldwide telecom equipment spending forecast to grow 9.1%. Strong sales of mobile devices in the third quarter of 2010, driven by smartphones in mature markets and white box devices in emerging markets, as well as stronger local currencies, resulted in an upward revision of Gartner's forecast.

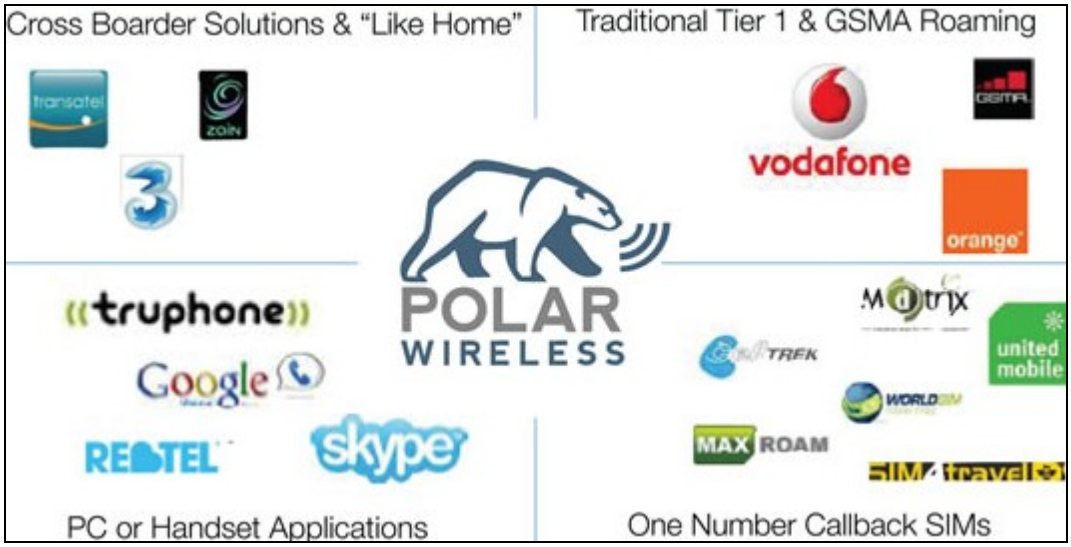
INDUSTRY POSITION

In the summer of 2007 the European Commission announced the introduction of Eurotariff which has made roaming charges considerably cheaper within the European Union. Eurotariff set limits on the prices that mobile phone operators can charge for calls both made and received in countries that are within the European Union. For mobile calls made abroad from summer 2008 the price was set at 46 cents per minute and for calls received it is set at 22 cents per minute. (All prices in Euros) Looking at a two year window of time, the prices set gradually decreased from 2007 to 2009. All mobile phone operators within the European Union are legally obliged to offer the Eurotariff.

Polar is the only solution in the space that does not require the user to change behavior.

Cross Border solutions and “like home” are higher cost solutions yet users face limited coverage.

Traditional Tier 1 and GSMA Roaming often times equal a higher cost for all parties and a limited home network mobile number.



One number call back SIMS such as Max Roam or United Mobile Solutions offer low cost single number call back solutions but the user often needs an extra handset or they may lose access to their home number.

PC or Handset Applications offer such as Skype or TruPhone can be low cost yet device dependent or offer limited mobility. For instance Skype can need an expensive data connection when roaming.

RECENT NEWS

On February 3, 2011 the firm announced the opening of its data and customer call centre in Russia to service the needs of its customers in Russia and the surrounding states. The launch in the region is due to the high concentration of active mobile users who are frequently in roaming mode. Russia currently has over 200 million mobile subscribers and is expected to grow to 242 million in 2014.

On January 5th 2011 The firm announced that it had entered into a definitive agreement to acquire all of the outstanding common shares of 2230354 Ontario Inc. 2230354 was a privately-held Ontario, Canada company that developed a proprietary solution that eliminates global roaming fees for all GSM mobile handsets for Voice, Data and SMS.

VALUATION

Looking at our model and adding in conservative estimates for capital expenditures and one-time expenses associated with a development company, we feel the firm could need between $3.5 and $4.0 million to fund operations. In early 2012 we anticipate the firm's revenues will fund operations.

Once the capital structure is in place, we feel the firm should outperform the overall industry and similar firms given the fact that both growth in travel and mobile phones has created a perfect storm of high roaming charges. These charges are expected to climb in the years ahead and Polar has the only solution which

does not require customer behavior to change. The leverage in the business model will become apparent as subscribers increase and fixed costs will remain range bound.

To value the firm we conservatively projected revenues and earnings out over ten years with two stages of growth. These stages consist of a high growth rate in the first ten years and a stable growth rate in the later years. This stable growth rate is in the later years will be more in line with the economy's overall growth. Using our relative valuation model (with a discount rate of 12%) we arrive at a value $0.95. Since this is a development company, the characteristics of the payoff on the firms stock could be similar to that of a call option. Investors with a high tolerance for risk and patience could be rewarded.

RISKS

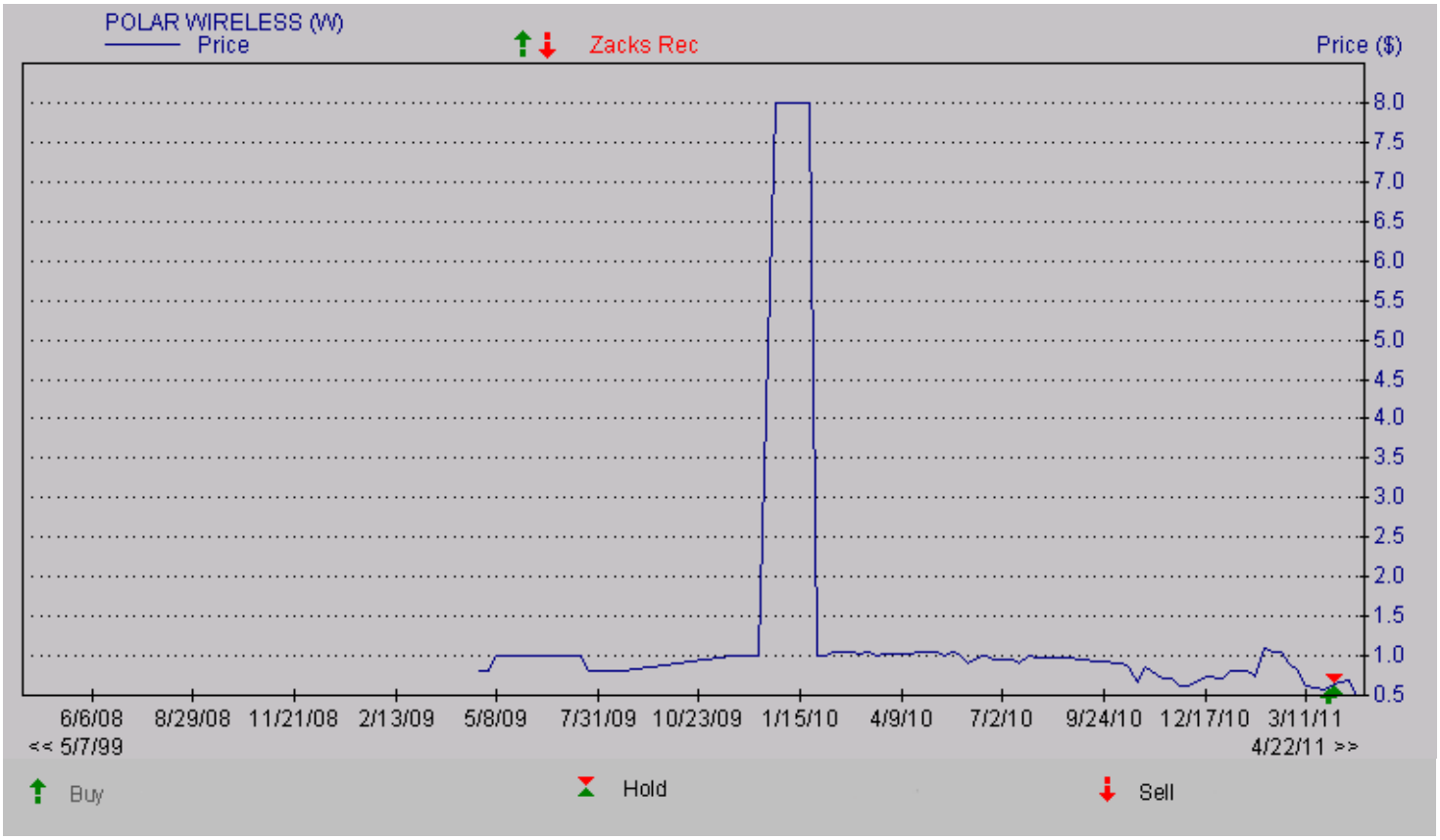
- In order to continue as a going concern, the company will need additional capital resources.
- Over the next several months, the company intends to launch new products; getting buy in from customers will be important.
- The prospect of a double dip recession or muted growth in the overall economy could impact the company.

PROJECTED INCOME STATEMENT

INCOME STATEMENT ($ Mil)	FY 2010	FY 2011 E	FY 2012 E	FY 2013
REVENUE				
Hardware Revenue	**-**	**5.00**	**10.90**	**22.00**
Service Revenue (net of Cost)		**2.65**	**12.00**	**28.00**
Total Revenue		**7.65**	**22.90**	**50.00**
Sequential Growth			*199%*	*118%*
OPERATING EXPENSES				
Cost of Revenues (hardware)	-	3.70	9.20	18.25
% of Revenue		*74%*	*84%*	*83%*
Gross Profit -	**-**	**3.95**	**13.70**	**31.75**
Hardware Gross Margin		*26.0%*	*15.6%*	*17.0%*
SG&A	0.0	1.4	3.5	6.1
% of Revenue		*18.7%*	*15.3%*	*12.2%*
Corp Overhead	-	3.60	3.60	3.60
% of Revenue		*47.1%*	*15.7%*	*7.2%*
Professional Fees	0.0	-	-	-
% of Revenue				
Total Operating Expenses	0.01	5.03	7.10	9.70
% of Revenue		*65.8%*	*31.0%*	*19.4%*
Operating Income -	**(0.01)**	**(1.08)**	**6.60**	**22.05**
Operating Margin		*-14%*	*29%*	*44%*
NON-OPERATING ITEMS				
Non operating Income/Expense				-
% of Revenue		*0.00%*	*0.00%*	*0.00%*
Tax Provision	0.00	0.00	1.00	3.00
Effective Tax Rate	*0%*	*0%*	*15%*	*14%*
Net Income -	**(0.01)**	**(1.08)**	**5.60**	**19.05**
Net Income Margin		*-14.1%*	*24.5%*	*38.1%*
EARNINGS PER SHARE				
EPS - Basic	$0.00	-$0.02	$0.08	$0.28
EPS - Diluted	$0.00	-$0.02	$0.08	$0.28

Ken Nagy, CFA Zacks Investment Research

HISTORICAL ZACKS RECOMMENDATIONS



DISCLOSURES

The following disclosures relate to relationships between Zacks Investment Research ("ZIR") and Zacks Small-Cap Research ("Zacks SCR") and the issuers covered by the Zacks SCR analysts in the Small-Cap Universe.

ZIR or Zacks SCR Analysts do not hold or trade securities in the issuers which they cover. Each analyst has full discretion on the rating and price target based on their own due diligence. Analysts are paid in part based on the overall profitability of Zacks SCR. Such profitability is derived from a variety of sources and includes payments received from issuers of securities covered by Zacks SCR for non-investment banking services. No part of analyst compensation was, is or will be, directly or indirectly, related to the specific recommendations or views expressed in any report or blog.

ZIR and Zacks SCR do not make a market in any security nor do they act as dealers in securities. Zacks SCR has never received compensation for investment banking services on the small-cap universe. Zacks SCR does not expect received compensation for investment banking services on the small-cap universe. Zacks SCR has received compensation for non-investment banking services on the small-cap universe, and expects to receive additional compensation for non-investment banking services on the small-cap universe, paid by issuers of securities covered by Zacks SCR. Non-investment banking services include investor relations services and software, financial database analysis, advertising services, brokerage services, advisory services, investment research, and investment management.

Additional information is available upon request. Zacks SCR reports are based on data obtained from sources we believe to be reliable, but is not guaranteed as to accuracy and does not purport to be complete. Because of individual objectives, the report should not be construed as advice designed to meet the particular investment needs of any investor. Any opinions expressed by Zacks SCR Analysts are subject to change. Reports are not to be construed as an offer or the solicitation of an offer to buy or sell the securities herein mentioned. Zacks SCR uses the following rating system for the securities it covers. Buy/Outperform: The analyst expects that the subject company will outperform the broader U.S. equity market over the next one to two quarters. Hold/Neutral: The analyst expects that the company will perform in line with the broader U.S. equity market over the next one to two quarters. Sell/Underperform: The analyst expects the company will underperform the broader U.S. Equity market over the next one to two quarters.

The current distribution of Zacks Ratings is as follows on the 1025 companies covered: Buy/Outperform- 14.0%, Hold/Neutral- 78.3%, Sell/Underperform – 6.6%. Data is as of midnight on the business day immediately prior to this publication.