



MITHRA RESEARCH

“Taming the Divine Bull”



ERF Wireless, Inc. (OTC BB: ERFW – \$0.32)

Initiate Coverage with Speculative Buy Rating

ERF Wireless: Clear Signals of Growth

Providing Service to Rural Markets

Banks • Law Enforcement • Oil & Gas • Healthcare • Residential • Business • Education • Petrochemical • Military • Exclusive Gated Communities • Local, State & National Government

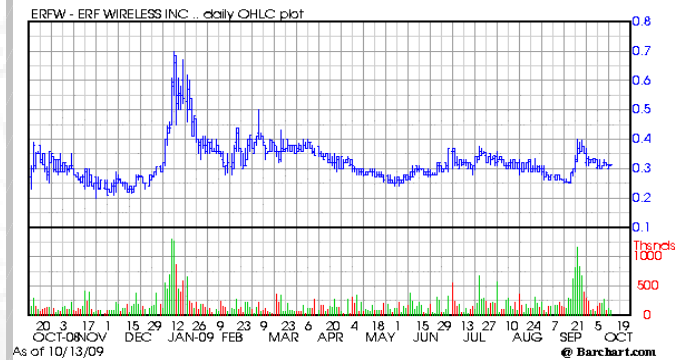
ERF Wireless is a leading provider of enterprise-class wireless broadband products and services to businesses, government, and residential consumers primarily in underserved, rural and suburban markets in the southwestern U.S. Now one of the largest wireless Internet service providers (WISPs) in the U.S., ERF Wireless is the consolidator in its markets, targeting acquisitions to build out field service ability and personnel to support its vertical market growth strategy and business market focus while benefiting its residential consumers.

- **Poised for Profitability and Continued Rapid Revenue Growth.** Having signed a major exclusive reseller agreement with **Schlumberger** (SLB – NYSE -\$64.15) in January 2009, ERF Wireless is poised for rapid growth and the turn to profitability in 2010 and 2011, respectively. This contract
 - ▶ provides a guaranteed pay-back on the initial investment;
 - ▶ supports build-out of the company’s network in new and existing service areas;
 - ▶ provides additional opportunity for vertical market growth;
 - ▶ provides tremendous revenue and profit potential upside, with scenario model indicating a \$40M run-rate in annual recurring revenue potential by 4Q 2011.

Schlumberger is the “800-pound gorilla” in North American oilfield services and dominates global connectivity services in that market.

- **ERFW Likely to Benefit From Congressional Broadband Stimulus Bill.** Congress has allocated \$7.2B in economic stimulus funding to support broadband deployment across the U.S. with a rural development focus. ERF Wireless is extremely well positioned to benefit from government grants and/or low cost loans to support the rural broadband build-out.
- **Rural Growth Opportunities.** With rural broadband penetration estimated to be 46%¹, Connected Nation estimates that a 7% increase in broadband penetration in underserved markets could stimulate the economy by more than \$134B².
- **Initiate Coverage with Speculative Buy Rating and 18-Month Price Target of \$1.77.**

ERF Wireless, Inc. (OTC BB: ERFW)



52-week range: \$0.70 - \$0.16 Div Yield: 0.0%

Capitalization (\$MMs)		Valuation Summary	
Mkt. Cap	\$43.04	EV/LTM Sales	13.7x
+ Total Debt	5.3	EV/LTM EBITDA	nm
+ Pfd/Warrants**	21.2	Debt/Tot Cap.	115.6%
- Cash	0.2	Book Val/Share	(\$0.01)
= Ent. Value	\$69.37	Cash Per Share:	\$0.00

Target Price/Ownership/Trading Profile	
Initial Target Price	\$1.77
FD Shares Out (MMs)*:	136.6
Institutional Ownership	0.2%
Insider Ownership	34.1%
Float (MMs)	73.7
Short Interest as of	na
Avg. Daily Volume (3 mo)	232,023
No. Thomson-First Call Analysts	0

*Includes 5.9m option equivalents, 0.9m upon conversion of debt instruments, and 500,000 in employee stock options.

**Includes 3.7m Series A Pfd with conversion of 1 Pfd for 18.676347 common & 0.6 warrants at \$0.45 and 6.3m warrants outstanding.

For discussion of the company’s financial opportunity and outlook, please refer to discussion on page 32 and scenario models / sensitivity analysis on page 34.

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Rural Broadband Opportunities

“Broadband can be the great enabler that restores America’s economic well-being and opens doors of opportunity for all Americans to pass through, no matter who they are, where they live, or the particular circumstances of their individual lives.”

- Acting FCC Chairman Michael Copps, April 8, 2009



The Internet has transformed social and business interaction worldwide. In 2008, 22% of the world’s population accessed the Internet. Domestically, in 2007 E-commerce accounted for \$1.9 trillion of manufacturing shipments (35% of total); online retail sales and select services reached \$251 billion³; and in 2006 online wholesale trade in farm products alone was an estimated \$5 billion. Video sharing and “cloud computing” are the fastest growing areas on the worldwide web, and these applications require high rates of quality transmission capability. Clearly, access to the Internet has become increasingly important – if not critical – to all of us, and our national economy.

High-speed Internet access is essential to fully capitalize on the Internet’s potential. As the Internet environment and economy have evolved and expanded, many content-laden websites and applications require high data transmission rates for effective use. In the United States, high-speed Internet access has grown at an unprecedented rate, with 63% - almost two-thirds – of U.S. adults having in-home broadband access by 2008. While the distance between metropolitan and rural Internet broadband access is closing, studies indicate that in 2008, just 41% - 46% of rural Americans had at-home broadband Internet access. This difference between urban and rural usage is primarily the effect of the rural environment. According to the USDA, “evidence suggests that this shortfall in broadband use is involuntary, and may be due to the higher cost of broadband provision or lower returns to broadband investment in sparsely populated areas.”⁴

Included in the American Recovery and Reinvestment Act of 2009 is \$7.2 billion targeted at closing the broadband gap between rural and urban Americans. ERF Wireless is a likely recipient of such funds. Why? Because wireless technology provides cost-effective rapid deployment solutions needed to address rural broadband needs.

Just What is Broadband Anyway?

The term “Broadband” in its essence means advanced communications systems capable of providing high-speed transmission of services such as data, voice, and video over the Internet and other networks. Data transfer is provided by a wide array of technologies (please refer to Exhibit 1: Types of Internet Access), including digital subscriber line (DSL) and fiber optic cable, coaxial cable, wireless technologies, and satellite. Broadband platforms make possible the convergence of voice, video, and data services onto a single network.

Internet access speeds are determined by *bandwidth*, which refers to the data transfer rate of information sent over a network in a given amount of time, and is typically measured in kilobits per second (Kbps) or megabits per second (Mbps) (one thousand bits per second and one million bits per second, respectively). For starters, the term “bandwidth” is often misused. Used correctly, the bandwidth of a channel is the “raw” data rate of transfer capability. The amount of actual user data (payload) that passes through a network link (throughput) is always less than the bandwidth of the network link due to many factors, including things like interference

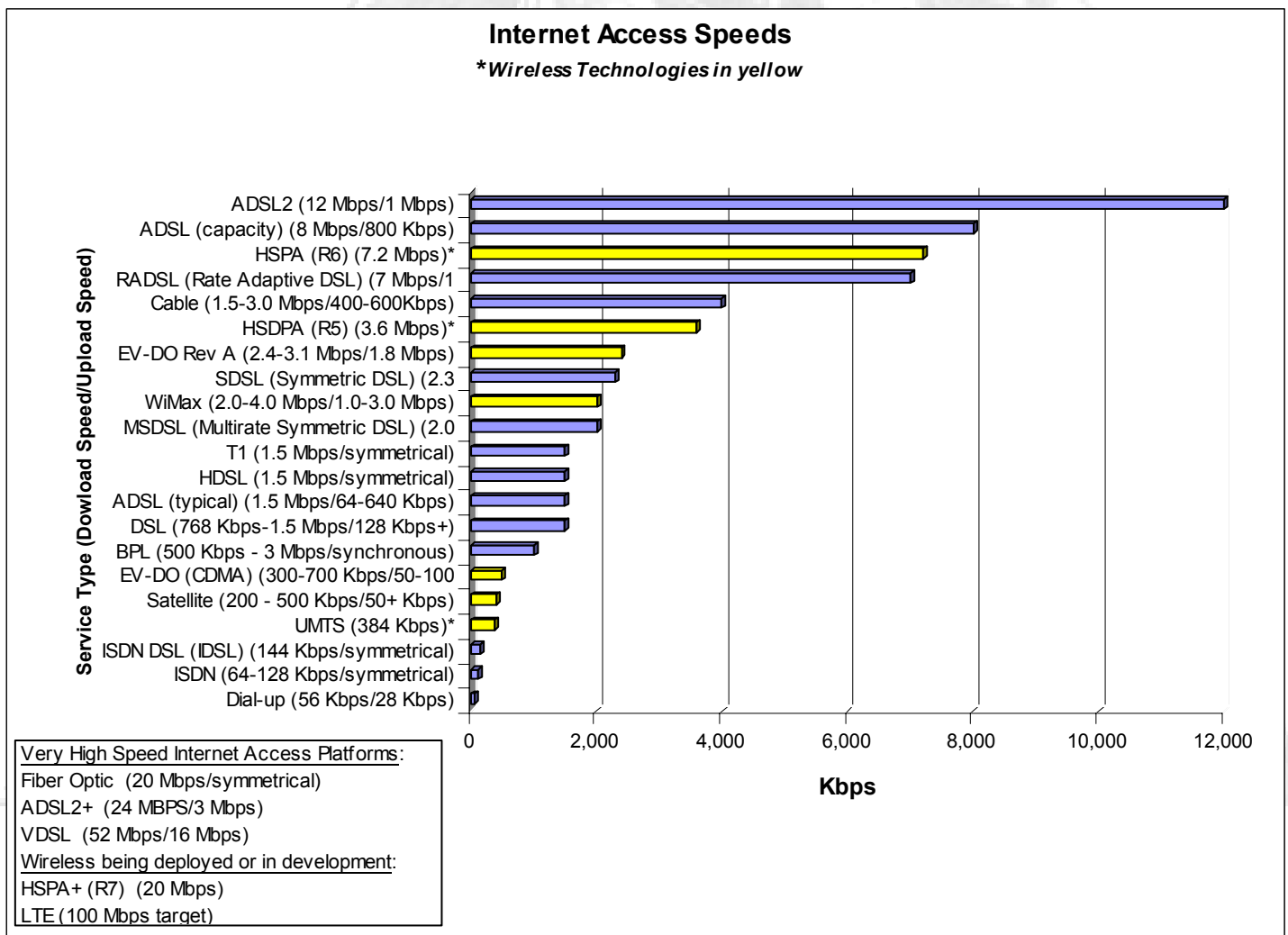
Exhibit 1: Types of Internet Access

Internet Access									
Network Type	Wired					Wireless			
	Optical	Coaxial Cable	Ethernet	Phone Line	Power Line	Unlicensed Terrestrial Bands		Licensed Terrestrial bands	Satellite
LAN	1000BASE-X	G. hn	Ethernet	HomePNA, G. hn	G. hn	WiFi, Bluetooth, DECT, USB			
WAN	PON	DOCSIS		Dialup, ISDN, DSL	BPL	Muni WiFi		GRPS, iBurst, WiBro/WiMAX, UMTS-TDD, HSPA, EVDO, LTE	Satellite

and network traffic volumes. So while advertised bandwidth usually refers to the raw data transfer rates, in practice, the advertised bandwidth is not always reliably available to the consumer. For instance, Internet Service Providers (ISPs) often allow a greater number of subscribers than the neighborhood access network can handle (under the assumption that most users will not be using their full connection capacity very frequently). This “aggregation” strategy often works, but high Internet traffic rates on any given network slows access speeds.

“Broadband,” referring to high rates of data transfer, is frequently referred to as “high-speed” Internet, because it usually has a high rate of data transmission. But there is no actual accepted protocol for a definition of “high speed” or “broadband.” The International Telecommunication Union Standardization Sector (ITU-T) recommendation I.113 has defined broadband as a transmission capacity that is faster than primary rate ISDN, at 1.5 – 2 Mbps. The FCC, on the other hand, has been using a definition of broadband as greater than 200 Kbps upload and 768 Kbps (0.8 Mbps) download (FCC 08-89 §20 Speed Tier 1). The Organization for Economic Co-operation and Development (OECD) has defined broadband as 256 Kbps in at least one direction – this bit rate is the most common baseline that is marketed as “broadband” around the world.

Exhibit 2: Internet Access Speeds of Available Technologies



Source: Mithra Research

Upload and download speeds are important to the definition and consumer experience of “broadband.” The two-way speeds determine the amount and quality of data that can be transmitted. A complex and data-rich application such as video-sharing (YouTube being one of the fastest growing segments of the Internet) requires high speeds to both upload and download streaming images. Videoconferencing, an increasingly important tool for business and rural healthcare, requires high speeds that are equivalent in both directions.

Speed Really Does Matter

In addition to the disparity in broadband access between rural and urban residents (please refer to “U.S. Broadband Deployment & Adoption,” page 7), differences among data transfer speeds and latency issues are another important disparity in broadband service across the country. The latest videoconferencing and video-sharing products require much higher two-way speeds than the FCC currently requires under its 768 Kbps/200 Kbps download/upload “high speed” definition. While the market in metropolitan areas continues to ramp in terms of both speed and quality, less densely populated areas are struggling to obtain basic services.

For the rural U.S., broadband Internet access is an essential prerequisite for any community that hopes to be a contributing force in the national economy. High-speed Internet access offers very real alternatives to deal with the current and destructive consolidation of schools, health facilities, and government in rural communities. The ability to promote distance learning, to transfer medical records, to provide remote medical treatment, to search for sources of employment, to develop a small business, to increase the audience of existing businesses, and to participate in social and civic affairs online all help enable small communities to remain viable and sustainable for the long-term.

Why Does Rural America Need Internet Access?

In a very short period of time, the Internet has evolved from being a luxury or entertainment item to an essential infrastructure for business, health care, education, and government. Online activities can be grouped into three broad categories: information sharing, purchase channels, and sales channels. Information sharing can range from the trivial to critical life or business issues – from chat rooms to medical or financial storehouses – and is the most common application for businesses and consumers.⁵

The “Internet Economy” has unquestionably transformed social and business interaction worldwide:

- In 1995, there were roughly 16 million Internet users across the globe; by 2008 there were nearly 1.5 billion, about 22% of the world’s population (Economic Research Services/USDA);
- Two-thirds of U.S. adults had in-home Internet access by 2008 (PEW);
- Online retail sales grew from \$31 billion in 2001 to \$127 billion in 2007 (U.S. Census Bureau);
- Online manufacturing E-commerce trade in 2007 was \$1,856 billion (35% of total) (U.S. Census Bureau);
- Online wholesale trade in farm products was an estimated \$5 billion – or 4% of all wholesale farm product sales in 2006 (USDA).
- 66% of Americans used search engines in 2007 to locate information about health (iCrossing.com)
- Domain names have grown from 30,000 in 1994 to 168 million in 2008 (Verisign);
- Hosts grew from 1,000 in 1984 to 570 million in 2008 (Internet Systems Consortium);
- 50% of U.S. small business owners telecommute (ITFacts.biz)
- 27% of people constantly use the Internet at work (ITFacts.biz)
- 58% of Americans have a mobile phone with Internet connectivity (ITFacts.biz)
- The Internet has led to new sources of supplemental income for some households. For example, crafts that used to be marketed only at annual State and country fairs, are now marketed year-round to wider audiences, and the Internet has led to the rise of auction sites, where anyone can be a buyer and/or seller of both new and used goods and/or services.
- The Internet expands the effective market area for businesses and has reduced geographic isolation.

Significant developments in the digital economy affecting rural America also include:

- E-government;
- Telemedicine;
- Online Education and Distance Learning

E-government. Four kinds of activities fall within this arena: information dissemination, citizen/consumer services, government business transactions, and governance. Information typically disseminated includes public holidays and related events, regulatory actions, issue briefs, public schedules, and things like school lessons and lunch menus. According to analysis of the 2007 June Agricultural Survey data, 12% of all farms and 22% of all farms with Internet access retrieved information from Federal websites (ERS/USDA).

Citizen or consumer services include paying taxes and fees, lodging complaints, requesting information, scheduling of public facilities, submitting applications for various programs. 4% of all farms and 7% of all farms with Internet access conducted business with the U.S. Department of Agriculture over the Internet in 2007 (ERS/USDA).

Telemedicine. Vast distances and low population densities have led to doctor and medical service shortages in many rural communities. With 25% of the people living in rural areas (GAO) and 22% of this population falling under the senior citizens category (U.S. Census Bureau), telemedicine is almost a requirement in rural markets. According to Frost & Sullivan, in 2006, the rural market constituted nearly 70% of the total telemedicine market in North America, implying a revenue size of approximately \$700 million.⁶

In markets where there are inadequate healthcare resources, one of the many benefits of telemedicine has been to improve the access to and the standard of care in underserved areas. Rural health care providers benefit from the use of telemedicine technology in numerous ways: patients no longer have to travel long distances or wait to consult with specialists; emergency cases may not always need to be evacuated to a larger hospital; telehome monitoring can help providers better manage elderly rural residents with chronic conditions (thereby reducing hospitalizations and avoiding early placement in nursing homes or assisted living facilities). Rural residents and their healthcare providers benefit in almost innumerable ways from true high-speed Internet access.

Online Education (also known as Tele-education) and Distance Learning. Online education, especially as it relates to the rural markets, offers two primary opportunities: access to educational opportunities and access to educational tools. Not only does the Internet lower the cost of access to higher education and other training via the virtual classroom (distance learning), the power of the Internet to provide a wide range of resources in a rapid manner makes it ideal for sharing teacher resources, virtual education, and problem-based learning activities that require external materials and mentors. The new possibilities that the Internet provides for visualizing scientific data and mathematical models offers so many possibilities for the way in which concepts can be imaged, understood and learned at a level beyond equations. In addition to access to a college education, “distance learning” also expands the course catalogue for traditional students, perhaps making it easier for rural high school students to access AP courses that may not otherwise be offered at local schools.



In fact, the 2008 Farm Act reauthorized the USDA’s telemedicine, distance learning, and rural broadband access grant and loan programs.

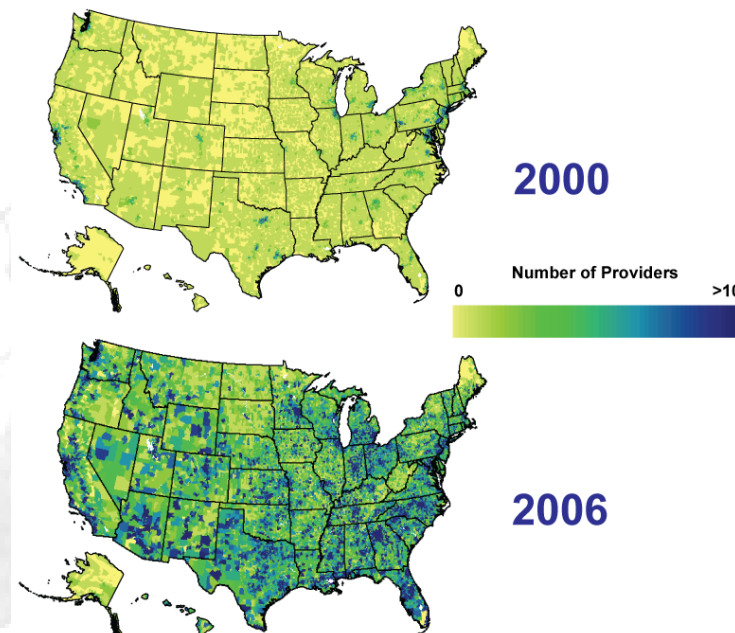
Access to the Internet – at broadband speeds and capabilities – has become a necessary tool for engagement in the modern American economy and culture. To summarize, high-speed Internet access benefits rural areas in several key ways:

- **In the new digital economy, broadband telecommunication has become a key location factor for businesses, almost as important as sewer, water, telephone, and electricity service.** Firms with broadband access are better able to communicate with suppliers and customers, enabling them to be more productive, innovative, and have higher sales. A 2005 study of businesses with broadband access in Appalachia found that for each firm located in a broadband accessible zip code, productivity increased between 14% and 17% over a similar firm located outside a region with broadband access⁷.

- **High-speed Internet access improves the quality of life in rural communities**, making it easier for smaller locales to attract and retain residents.⁸ Broadband fosters social interactions that increase attachment to rural communities and increases economic opportunities.
- **Broadband technology is beginning to level urban and rural access to a host of services.** One of the advantages of living in a large metropolitan area is that there are a host of services available – from specialty stores to high quality health care. Broadband is bringing these and other services to rural residents by allowing them to “travel” virtually. Consumers in rural areas who were previously restricted in their choices of products and services now have access to the same variety of goods as consumers living in metropolitan areas: a farmer in the middle of Montana now has the same selection of music and books through iTunes and Amazon (AMZN – Nasdaq - \$94.83) as anyone in New York City. Rural residents have the opportunity through telemedicine to link to the best hospitals in urban areas throughout the nation, potentially affording them similar quality care. A laid-off auto-worker in Detroit can take courses online to get a degree in order to help them find a new job in a different career. Expanding rural broadband access and use is not just something that will help rural communities, it helps the nation as a whole.

Exhibit 3: Growth in Availability of Broadband in U.S. 2000 vs. 2006

Broadband Internet availability increased between 2000 and 2006



Source: Economic Research Service calculations based on Federal Communications Commission data.

U.S. Broadband Deployment & Adoption

The growth in high speed Internet service availability in the U.S. has been rapid. According to the Pew Research Center’s Internet & American Life Project’s April 2009 survey, 63% of U.S. adults had broadband at home, rising from 55% in May 2008. Notably, according to the Pew Internet Project, broadband penetration surpassed 50% in 2007; **it took just nine years from the time the service became widely available for home high-speed Internet to penetrate 50% of the domestic population.**⁹ To put this into perspective, it took 18 years for color TV to reach 50% of the consumer market, 15 years for cell phones, and 10 years for the CD player to reach this level of penetration.¹⁰ (Each of these technologies, like high-speed Internet, represents an upgrade from a product or service with which most consumers had experience.)

The Digital Divide

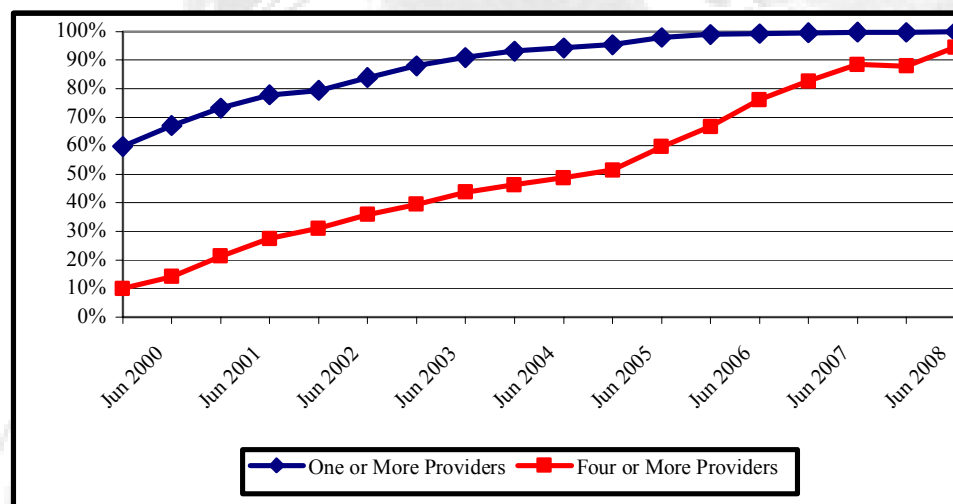
From the outset, the rapid growth in broadband adoption and use presented a paradox: some segments of the U.S. public were significantly slower to adopt and receive benefits from use of the Internet than others. Larry Irving, a former United States head of the National Telecommunications Infrastructure Administration (NTIA) at the Department of Commerce, noted this paradox as early as 1995 and termed it the “digital divide.”¹¹

The term “digital divide” refers to the gap between those people with effective access to digital and information technology, and those without access to it. Groups usually discussed in this context include socioeconomic (rich/poor), racial (white/minority), or geographic (urban/rural). The “rural divide” can be divided into two major sets of factors – those related to the physical availability of broadband Internet service (deployment) and those related to the resources and skills required to use broadband Internet once it has become available (adoption).

Rural Broadband Deployment

According to a 2009 FCC report, high-speed DSL connections were available to 83% of the households to whom Local Exchange Carriers (LECs) could provide local telephone service (as of June 30, 2008), and high-speed cable modem service was available to 96% of the households to whom cable system operators could provide TV service. Further, service providers list the zip codes in which they have at least one high-speed connection in service to an end user, and 100% of zip codes were listed by at least one provider.¹²

Exhibit 4: Percent of Zip Codes with High-Speed Internet Service Providers



Source: Federal Communications Commission – as of June 2008

Is this data meaningful? It appears that current FCC data suffers from overly broad measurement systems and a heavy reliance on data from broadband providers. This FCC measurement of broadband deployment allows a single subscriber to count for “availability” across a zip code of any size; based on the data, there is no way to know how many households and/or businesses actually have broadband available to them. The GAO notes that “for its zip-code level data, FCC collects data based on where subscribers are *served*, not where providers have deployed broadband infrastructure. Based on our analysis, it appears that these data may not provide a highly accurate depiction of deployment of broadband infrastructures for residential service in some areas.”¹³

The Pew Internet & American Life Project provides an alternate source of national-level data. In a 2009 telephone survey, 17% of rural Americans with dial-up service reported that they do not subscribe to broadband Internet service because it is not available to them where they live.¹⁴

Notably, there has been more detailed data collected at the state level, particularly in California and Kentucky. California's Broadband Task Force found that while the Bay Area had a 99% rate of broadband availability, just 57% of households in the rural Northern Sierra region even had the option to purchase basic broadband services. Overall, the Task Force found that throughout the state, approximately 500,000 households – almost 1.4 million Californians – were unable to subscribe to broadband, and that nearly 2,000 communities did not have any options for broadband access.¹⁵

ConnectKentucky, a public-private partnership, has become an oft-quoted model for measuring and improving broadband deployment across rural counties. Since 2004, ConnectKentucky has surveyed the state's 81 broadband service providers to analyze availability and to prioritize areas for expanding broadband access. According to Renkow's analysis of the data, more than 85% of households in nearly all areas of the state had broadband access – but there were seven counties in which less than half of all residents had access.¹⁶

A variety of market and technical factors (in addition to Federal and state government efforts and access to resources at the local level), have influenced the deployment of broadband infrastructure. Most importantly, companies evaluating the deployment of broadband infrastructure consider both the cost to deploy and operate a broadband network and the expected demand for broadband service. Obviously it is more costly to serve areas with a low population density and rugged terrain (with terrestrial facilities) than it is to serve areas that are densely populated and have flat terrain. Even when cost and demand factors are favorable, technical factors can limit the deployment of broadband service in certain areas. For example, DSL (the primary service provided by telephone companies), even with repeaters, can generally extend only a limited distance from the central office with copper plant, which precludes many homes from obtaining DSL service.

In fact, a key challenge for national or state policy in the area of rural broadband access is obtaining meaningful data. Recognizing this, the \$7.2 billion designated for broadband deployment in the stimulus package included \$350 million targeted for developing “a nationwide inventory map of existing broadband service capability and availability in the United States.”¹⁷

Rural Broadband Adoption

While there is inadequate information on broadband availability to American consumers, rural residents in particular, there is data on adoption and use. Studies by the National Telecommunication and Information Administration (NTIA) and the Pew Internet and American Life Project have shown that the elderly, people with less education, and lower income groups – all over-represented in rural areas – tend to subscribe less often to broadband services at home (please refer to Exhibit 10: Trends in Home Broadband Adoption by Demographic Group, on the next page). This creates a perceived lack of demand that deters potential providers from investing in broadband infrastructure.

In Pew Internet's 2009 Home Broadband Adoption survey, price was the main reason cited as to why at-home Internet users opted to keep dial-up service rather than switch to broadband in areas where it is available (urban or rural). This is partially a function of the number of service providers in any given locale, as it has been demonstrated that prices do come down when competition exists between broadband providers¹⁸. According to Pew Internet's 2009 survey, the average monthly bill for broadband service across the United States in April 2009 was \$39 (up from \$34.50 in May 2008). This compares to an average of \$26.60 per month for dial-up service. Broadband users who have just one provider where they live (21% of home high-speed users) reported an average monthly bill of \$44.70. This compares to broadband users with more than one provider in the area (69% of home broadband users), where the average broadband bill is \$38.30. Verifying the price vs. Internet service provider competition relationship, the subset of home broadband users who reported four or more broadband service providers serving their neighborhood (17% of all home high-speed users) reported an average monthly bill of just \$32.10.

Further, according to the Pew Internet and American Life Project research, a number of socio-economic factors are positively correlated with home broadband adoption, while others are negatively correlated. Listed in order of magnitude:

Factors positively correlated with home broadband adoption (in order of magnitude):

- Income (household incomes greater than \$75,000 annually)
- Having a college degree or more
- Parent of a minor child in the home
- Married or living with partner
- Employed full time

Factors negatively correlated with home broadband adoption (in order of magnitude):

- Having less than a high school degree
- Senior Citizen (age 65 or over)
- Living in rural America
- Having a high school degree only
- African American (non-Hispanic)

Exhibit 5: Trends in Home Broadband Adoption by Demographic Group

Percentage of adults in each group with broadband at home, 2006-2009

	2006	2007	2008	2009
Yearly Adoption				
All Adults	42%	47%	55%	63%
Educational Attainment				
Less than high school	17%	21%	28%	30%
High school grad	31	34	40	52
Some college	47	58	66	71
College+	62	70	79	83
Household Income				
Under \$20K	18%	28%	25%	35%
\$20K-\$30K	27	34	42	53
\$30K-\$40K	40	40	49	54
\$40K-\$50K	47	52	60	71
\$50K-\$75K	48	58	67	80
\$75K-\$100K	67	70	82	82
Over \$100K	68	82	85	88
Community Type				
Non-rural	45%	50%	59%	67%
Rural	25	31	38	46

	2006	2007	2008	2009
Yearly Adoption				
All Adults	42%	47%	55%	63%
Gender				
Male	45%	50%	58%	64%
Female	38	44	53	63
Families				
Parents with minor children	51%	60%	69%	77%
Age				
18-29	55%	63%	70%	77%
30-49	50	59	69	72
50-64	38	40	50	61
65+	13	15	19	30
Race/Ethnicity				
White (not Hispanic)	42%	48%	57%	65%
Black (not Hispanic)	31	40	43	46
Hispanic (English-speaking)	41	47	56	68

Sources: 2006 data from Pew Internet Projects Feb 15 - Apr 6 survey of 4,001 adults; 1,562 were home broadband users.

2007 data are drawn from March survey of 2,200 adults; 966 were home broadband users.

2008 data are from April-May of 2008 survey of 2,251 adults; 1,153 were home broadband users.

2009 data are from April 2009 survey of 2,253 adults; 1,332 were home broadband users.

Source: *Pew Internet & American Life Project: 2009 Home Broadband Adoption*

Importantly, in the 2009 Pew Internet survey, participants still using dial-up Internet access service were queried as to what it would take in order to get them to switch to higher speed broadband service. 35% of respondents replied that prices must fall; 17% responded that it would have to become available where they live. Price sensitivity is – not surprisingly – a characteristic of lower-income groups. The number of price-sensitive respondents that haven't upgraded to broadband equates to approximately 8% of the U.S. adult population: current dial-up users without available broadband service translates into 4% of the U.S. adult population.¹⁹ Both groups are primarily rural residents.

So while there is not sufficient data to determine accurately the extent of actual broadband deployment in the U.S., particularly in rural areas, it is clear that there is a large population of existing Internet users that would utilize broadband services were they available and/or affordable.

Rural Internet Access



Similar to the question of just what is the definition of “broadband,” the definition of just exactly what constitutes “rural” differs widely. The U.S. Department of Commerce, the U.S. Department of Agriculture, and the U.S. Bureau of Census have all released substantially different definitions. Consolidating these numbers, the GAO estimates that 97.5% of the landmass of the United States is rural, and approximately 25% of the population lives in non-metropolitan/rural areas of the nation.²⁰ However it is measured, there are approximately 36,000 municipalities and towns in the U.S., of which the large majority are small: 82% have less than 5,000 inhabitants, and 71% have less than 2,500 inhabitants.²¹

So who provides Internet access service to the 60 – 70 million people living in the rural United States? Internet Service Providers include – just as they do in urban areas – Telephone companies (RBOCs – Regional Bell Operating Companies – and RLECs – Regional Local Exchange Carriers), Cable TV providers, cellular service providers, and WISPs (Wireless Internet Service Providers).

Without a doubt, broadband is the most important factor for the future of wireline telecom service providers. The transition of “local service” from a primarily voice-centric product to a broadband product is already well under way. Regardless of company size or geographic footprint, today’s telecom carrier faces an unprecedented change in its core business. Broadband is the future of the business – whether Telco, cable, or wireless.

Profile of Telecom Infrastructure in Rural America

As a proxy for the rural landscape when it comes to providing broadband service we can turn to the Rural Local Exchange Carrier (RLEC) industry. It is dominated by a few large carriers, each having between 100,000 to nearly 3 million access lines distributed across markets in numerous states.²² According to Standard & Poor’s, while some of the large rural providers (such as CenturyTel Inc. (CTL-NYSE-\$33.34) and Citizens Communications Co. (now Frontier Communications FTR-NYSE-\$7.48)) are dedicated wireline service providers, others, such as ALLTEL (now owned by Verizon (VZ-NYSE-\$29.02)) and Telephone & Data Systems, Inc. (TDI-NYSE-\$21.26), also have sizeable wireless operations. The remaining carriers, estimated to be over 1,200, are mostly small operators with fewer than 100,000 access lines and concentrated in a few markets. The seven large RLECs rated by Standard & Poor’s serve about 80% of the 12 million rural access lines owned by rural carriers; non-rural carriers, such as the regional Bell operating companies (RBOCs) and Sprint, serve an estimated 28 million rural access lines.²³

Notably, according to the Rural Task Force²⁴, while both rural carriers and non-rural carriers serve rural communities, rural carriers’ operations tend to be focused in the more geographically remote areas of the nation with widely dispersed populations. RLECs generally serve high-cost markets characterized by low access line density (an average of 13 access lines per square mile versus an average of 105 access lines in non-rural markets) and long average loop length (average loop length of over 20,000 feet versus 10,000 feet in non-rural markets). A summary of the Rural Task Force findings:

- RLECs serve about 8% of the nation’s access lines and 38% of the nation’s land area;
- The average population density served by RLECs is only 13 persons per square mile versus 105 persons per square mile served by non-rural carriers;
- On average, RLECs serve only 19 lines per square mile where non-rural carriers serve 128 lines per square mile;
- RLECs have substantially fewer lines per switch than non-rural providers, impeding benefit from economies of scale. On average, RLECs serve 1,250 lines per switch where non-rural carriers serve 7,188 lines per switch;
- Notably, the number of lines per switch decreases dramatically as the line size of the study area served decreases. RLECs with more than 100,000 lines average nearly 3,000 lines per switch, compared to an average of just 223 lines per switch for study areas with less than 500 lines;
- The average loop length of RLECs is twice that of non-rural providers, with an average loop length of 20,000 feet compared to 10,000 feet in non-rural markets;
- Upon evaluating proxy cost model output for a representative sample of 10 states, RLECs served 70% of the area with less than 5 lines, but only 10% of the area with over 100 lines.
- The average population density of areas served by RLECs varies “radically.” For instance, RLECs in Alaska and Wyoming serve populations of 0.58 and 1.25 persons per square mile respectively, while RLECs in some states serve populations of over 100 persons per square mile.
- Multi-line business customers typically produce more revenue per line than residential or single line business customers. The average RLEC multiline business represents 12% of its revenue base compared to 21% for non-rural carriers;

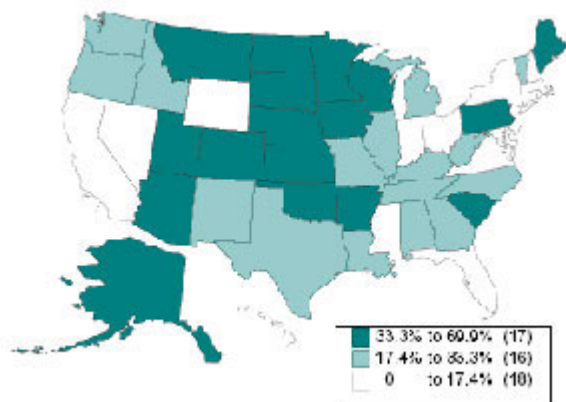
The isolation of areas served by RLECs results in numerous operational challenges:

- RLECs have relatively high loop costs because of the lack of economies of scale and density.
- RLECs experience difficulty and high cost in moving personnel, equipment and supplies to remote insular communities.
- Geographic surface conditions – such as coral, volcanic rock and permafrost – require expensive specialized outside plant construction practices.
- More resources, including duplicate facilities and backup equipment are required to protect network reliability.

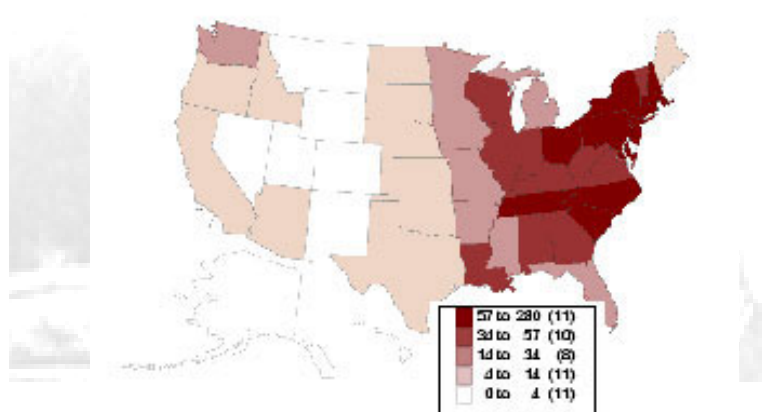
Exhibit 6

Percent of Land Area Served by RLECs

**RLEC Service Area Population Density
Per Square Mile**



Source: Rural Task Force White Paper 2



Source: Rural Task Force White Paper 2

Clearly rural service providers face unique challenges in deploying and maintaining service, notably those providing service to large areas of low population density with diverse terrain. The geographic isolation of many rural areas contributes significantly to higher comparative costs to build and maintain service. The movement of materials, manpower and equipment into these areas can

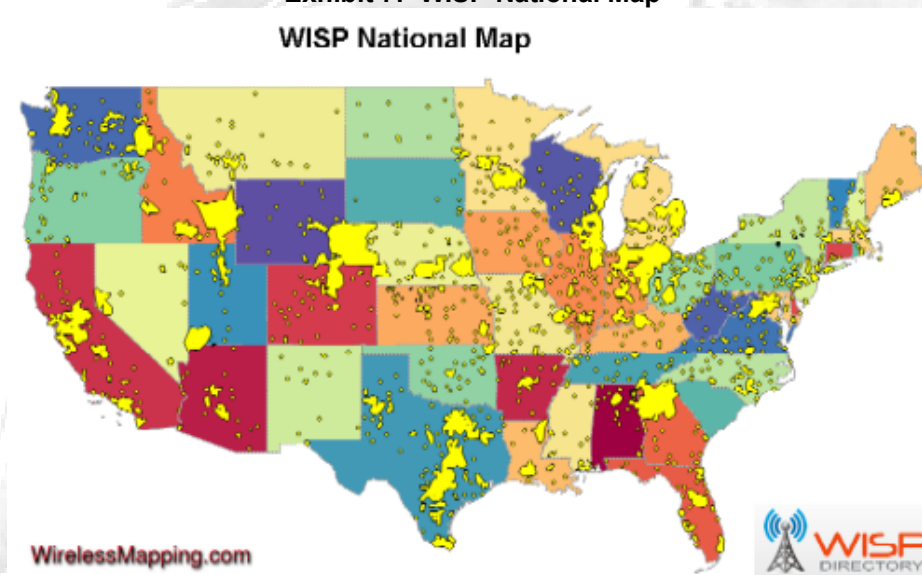
significantly increase initial construction and ongoing operational costs, particularly as the lack of highways and integrated road systems contribute to the problem in many rural locales.

Wireless Internet Service Providers (WISPs)

According to cable and telephone providers, the Internet Service Providers (ISPs) are the only way to get broadband. But for many Americans – rural residents in particular – there is an alternative: the Wireless Internet Service Provider (WISP). WISPs use radio communication towers to connect businesses and residents to fiber-optic backbone lines with long-range wireless routers installed at the point of service. WISPs can also provide “last mile service” quickly and efficiently to areas that cable or DSL may not. “WISP” may refer to a WiFi service hotspot or an operator with a network infrastructure. Often WISPs provide additional services, such as location-based content, Virtual Private Networking, or Voice over IP (VoIP).

Created by the FCC’s allocation of unlicensed spectrum in the early 1990s, many WISPs operate in the license-exempt bands (900 MHz, 2.4 GHz and 5.8 GHz), the 3650 MHz “licensed-lite” band and, in some cases, licensed bands.²⁵ WISP networks typically use a combination of point-to-point connections for the long-distance transmissions, and point-to-multipoint transmissions to connect neighborhood access points to subscribers. Under Part 15 rules for unlicensed usage, the FCC allows operators to make these connections without reducing transmitter power output (TPO) for the 5.725 GHz and 5.825 GHz band. Because of this regulatory latitude for narrow beam transmissions, providers are able to reach long line-of-site distances with relatively low power. Many WISPs make final “last mile” connections within service areas by using modified WiFi wireless access points mounted on things like customer silos, grain elevators, barns, rooftops, commercial buildings, and water towers.

Exhibit 7: WISP National Map



As it is difficult for a single service provider to build an infrastructure that offers global access to its subscribers, roaming between service providers is encouraged by the WiFi Alliance with the WISPr protocol. WISPr is a set of recommendations approved by the alliance that facilitate inter-network and inter-operator roaming of WiFi users. Many wireless broadband services provide average download speeds of over 100 Mbps with an estimated range of 30 miles (though line of sight is necessary). Technologies used include LMDS and MMDS, and WiMAX technology, standardized by IEEE 802.16e is beginning to take off.²⁶

Just as accurate information on broadband deployment in the U.S. is lacking, concrete data on the WISP industry also presents a challenge. The Wireless Internet Service Providers Association, WISPA, is a trade association that represents “more than 350 WISPs, vendors, system integrators and others interested in promoting the growth and delivery of wireless broadband service.”²⁷ There are approximately 100 WISPs filed with the FCC, serving somewhere between 2 million and 3 million primarily rural consumers.^{27, 28} Interestingly, the zip code data the FCC gathers as a proxy for broadband deployment is collected using Form 477: “facilities-based” providers of broadband connections to end-users are required to submit the form twice a year. Many WISP operators do not. Lacking

anonymity in the filing, many WISP operators do not want to disclose the location of every AP they own, and they do not want to invite competition from large, national providers.

In fact, different sources cite widely divergent numbers of WISP operators. In September 2003, analysts In-Stat/MDR estimated there were “between 1,500 and 1,800 WISPs” in the U.S.²⁹ During the *Wireless Broadband Forum* held in May 2004 by the FCC, Margaret LaBrecque, Chairperson of the WiMAX Forum Regulatory Task Force, claimed that there were “2,500 wireless ISPs in the U.S. serving over 6,000 markets.”³⁰ At the same meeting, Michael Anderson, Chairperson of part-15.org, an industry association for license-free spectrum users, said there were “8,000 license-exempt WISPs in the United States actively providing service,”³¹ most of them serving rural areas. Yet the FCC’s own Wireless Broadband Access Task Force estimated the number of WISPs to be “between 4,000 and 8,000.”³²

While the larger WISPs generally serve less than 10,000 subscribers (the two largest now serve approximately 20,000),³³ the majority are small mom-and-pop type operations serving about 100 subscribers each. It is an extremely fragmented industry and is now in the process of consolidation. Larger WISP providers are in a unique position to take advantage of the broadband stimulus package, as they already serve rural areas and are familiar with the challenges of serving those markets.

U.S. Stimulus Package – Broadband Provision

ERF Wireless is well positioned to benefit from programs initiated with this Stimulus package. The company submitted a first-round Broadband Initiatives Program (BIP) loan/grant application for Louisiana and parts of East Texas totaling \$24.6M. It is exclusively a “last mile” application that covers over 50 service areas in the most rural and economically challenged regions of those states, with a population size in the regions covered of approximately 591,346 residents. Additional BIP applications in conjunction with other applicants that specify ERF Wireless as the lead vendor and operator for the ‘last mile’ portion of their networks have also been submitted for select communities.

In the recently passed American Recovery and Reinvestment Act of 2009, also known as “the Recovery Act,” or “the stimulus package,” Congress appropriated \$7.2 billion for broadband grants, loans, and loan guarantees to be administered by the USDA’s Rural Utilities Service (RUS) and the Department of Commerce’s National Telecommunications and Information Administration (NTIA) in concert with the FCC to accelerate broadband deployment in areas of the country that have been without high-speed infrastructure.

The essential goal of the stimulus package is to provide a “direct fiscal boost to help lift our Nation from the greatest economic crisis in our lifetimes and lay the foundation for future growth.”³⁴ Accordingly, the Recovery Act identifies five overall purposes:

- 1) to preserve and create jobs and promote economic recovery;
- 2) to assist those most impacted by the recession;
- 3) to provide investments needed to increase economic efficiency by spurring technological advances in science and health;
- 4) to invest in transportation, environmental protection & other infrastructure that will provide long-term economic benefits; and
- 5) to stabilize state and local government budgets.

The Recovery Act further instructs the President and the heads of federal departments and agencies to manage and expend Recovery Act funds to achieve these five purposes “commencing expenditures and activities as quickly as possible consistent with prudent management.”³⁵ The Recovery Act tasks RUS, NTIA and the FCC with leading the federal government’s efforts to significantly expand the reach and quality of broadband services.

The Recovery Act includes \$2.5 billion of budget authority for RUS to extend loans, loan/grant combinations, and grants to projects where at least 75% of an RUS-funded area is in a rural area that lacks sufficient access to high-speed broadband service to facilitate rural economic development. It also includes \$4.7 billion to NTIA to provide grants for broadband initiatives throughout the U.S., including unserved and underserved areas. The NTIA mandate is to spur job creation, stimulate long-term economic growth and opportunity, and narrow gaps in broadband deployment and adoption.

The view of the current Administration in this regard is simple: broadband is the future of the U.S., and it boils down to two simple issues: job creation and cost savings. According to Connected Nation,³⁶ a 7% increase in broadband penetration in underserved parts of the country could stimulate the economy by more than \$134 billion while creating \$92 billion in new wages from 2.4 million jobs created and other intangibles. These benefits would accrue in numerous ways. In its calculations, Connected Nation said the 7% boost in national broadband adoption would also result in \$662 million in savings in healthcare costs, \$6.4 billion in annual mileage savings, \$3.2 billion fewer pounds of carbon dioxide emissions annually, and 3.8 billion hours of time saved by U.S. consumers conducting transactions online at a cost savings of \$35.2 billion. By all accounts, the broadband portion of the stimulus bill presents an attractive opportunity to all Americans, not just rural residents.

Which Broadband Technology Best Serves Rural Areas?

The deadline for the first tranche of applications in the \$7.2 billion broadband stimulus package was August 14. The FCC is “technology neutral,” saying only that the technology employed needs to be “cost-effective to install, provide consistent performance at an affordable price, and be able to upgrade to higher speeds over time.” According to the agencies responsible for reviewing the applications (the USDA’s Rural Utilities Service (RUS) and the Commerce Department’s NTIA) they are eyeing broadband speeds – but more importantly, they are focused on how long it will take to put the systems into place in accordance with the stimulus’ package directive to “commence expenditures and activities as quickly as possible consistent with prudent management.” According to the RUS, historically 37% of its loans have gone to those that run fiber optic cable directly to homes; 23% have gone to wireless; 22% have gone to DSL; 17% have gone to cable, and 1% to the new Broadband over Powerline (BPL) technology.

With speeds up to 100 Mbps, running fiber optic cable directly to homes would offer the broadest bandwidth. Speed can easily be increased by changing the equipment attached to the network, meaning it is unlikely to be made obsolete in the near future. But fiber networks are generally the most expensive option. Business Week profiled the case of Hill Country Telephone Cooperative in Ingram, TX. The small provider is undertaking a \$57 million effort to install fiber and bring broadband service to a substantial part of its market, covering 2,900 square miles – roughly twice the size of the state of Rhode Island. “Yet even with this effort, the provider will not be able to serve 543 remote households, about 5% of its market area, because it is simply too expensive.” The problem? Reaching those customers would require laying 522 miles of fiber optic cable at a cost of \$20 million – an average cost of \$37,000 per subscriber.³⁷

While some point to limitations of wireless technologies (line of sight and interference issues), as outlined above, reaching remote rural customers with traditional broadband delivery can be prohibitively expensive – exactly the reason it isn’t available in the first place. Advantages of wireless broadband deployment include:

- Rapid deployment
- Cost-effective technology to cover long distances
- Cost-effective to provide coverage in difficult terrain
- Appropriate for latency-sensitive applications (such as VoIP, video-on-demand, and video-conferencing)
- Dependent upon which wireless technology is chosen, speeds rival almost all wireline options
- With proper management and equipment, interference does not affect network activity³⁸

The fact of the matter is that technological advances in wireless communications are changing the economic landscape as it relates to the deployment of broadband service to rural markets. For instance, the advantages of deploying WiMAX technology based on a global standard include higher data speeds, greater spectral efficiency, global economies of scale and forward compatibility with the mobile WiMAX (802.16e standard). In addition, with the certification of network standards and profiles to standards, network equipment costs should continue to decrease, benefiting both consumers and service providers. Because the cost of building land-based infrastructure can be so high in some rural areas, wireless broadband Internet access now presents a very real opportunity – both for backbone build-out where needed and in deploying “last mile” connection services.

Rural Opportunities are Real and Significant

Rural consumers want broadband service and growth is outpacing all other areas. While some studies point to socio-economic conditions that appear unfavorable to broadband adoption in rural areas, growth in rural broadband adoption is a reality. According to comScore, rural markets in the U.S. (defined for the purposes of the study as markets having a population of less than 10,000) experienced a 16% increase in broadband penetration from Q207 to Q209, making it the fastest growing geographic market segment in the nation.³⁹ “Comparatively, micropolitan areas (population between 10,000 – 50,000) grew 14% during the same period, while metropolitan areas (population 50,000+) grew 11%.”⁴⁰

Just 70% of rural homes with in-home Internet access had a broadband connection: this compares to 84% of urban homes. Given that there is little difference in adoption rates among homes with similar incomes in rural and urban areas, there is clearly more limited availability of broadband in the rural setting,⁴¹ indicating ongoing opportunity for growth in rural broadband adoption.

The Internet has become an integral component of our lives. The Internet is no longer just a tool for communication or a source of entertainment. The lines between “real world” and “virtual world” have blurred, and the Internet is a place that creates jobs, where we find jobs, and where we work; it is where we get medical information, attention and advice, and where we learn. It is where we shop, and compare prices. It is where manufacturers and farmers sell their products. The Internet is not a toy; it is a tool, and one that is critical to the future of our communities.

Wireless technologies present rapid, cost-effective solutions to delivering broadband service to rural communities. The Rural Utilities Service of the USDA has traditionally granted 23% of its loans to wireless technologies in the rural broadband build-out. ERF Wireless and other WISP providers already serving rural America will likely benefit from the stimulus package as they have the expertise and experience required to deploy broadband in targeted rural areas.



Company Overview

ERF Wireless Ranked 36th Fastest Growing Technology Company in North America on Deloitte's 2008 Technology Fast 500. ERF Wireless ranked third on the Texas Technology Fast 50.

Located in League City, Texas, ERF Wireless was founded in 2004 with the objective of applying wireless broadband technology to a select suite of enterprise, commercial and retail communications needs. Within a few short years, the company's strategic business plan has successfully positioned ERF Wireless as

- the nation's leading provider of secure wireless networks for the regional banking industry;
- one of the largest wireless Internet Service Providers (WISPs) in the U.S. with over 10,000 subscribers; and
- the company is well on its way to becoming a dominant provider of services to the oil and gas industry in U.S. and Canada.

Today, ERF Wireless continues to aggressively build and operate wireless broadband networks utilizing a combination of acquisitions, partnerships and new construction.

ERF Wireless is able to provide comprehensive solutions that include a wide array of communications services, including high speed/high quality broadband, voice over Internet Protocol (VoIP) telephone and facsimile service, and video security.

The company has five operating divisions (in four reporting segments) that provide solutions and services to different segments of the wireless industry.

Business Segments

Enterprise Network Services (ENS)

ERF Wireless' Enterprise Network Services provides turnkey design and implementation of secure wireless broadband networks for enterprise-class applications, including healthcare facilities, educational institutions, cities and unincorporated municipalities. In particular, ENS has focused its attention primarily on the regional banking industry, where product offerings include:

- BankNet
- BranchNet
- WiNet
- CryptoVue™

ENS network design is strictly for WAN point-to-point connectivity and is not intended for "within the building" wireless applications. Once in place, this enterprise-class wireless network not only replaces all of the data connectivity requirements between locations, but also has the excess capacity to provide VoIP telephone service, video surveillance, document imaging and Internet connectivity for all of the enterprise locations.

Network Operations

Network Operations provides the overall day-to-day maintenance and 24/7 monitoring of all wireless broadband networks that the company constructs, acquires, maintains, and administers. It also provides monitoring and maintenance services to third party networks. Network Operations are reported in Wireless Bundled Services (WBS).

Wireless Bundled Services (WBS)

ERF Wireless markets its residential and enterprise services through WBS, which provides a variety of Internet, voice, data, network monitoring and video services across the country, both under the ERF Wireless brand, as well as under the local branding of other ISP companies that have been acquired. This division is also in the process of building or acquiring wireless broadband networks to serve private entities, cities, municipalities, and the general public.

Oil & Gas Division (O&G)

A division of Wireless Bundled Services, the O&G Division leverages the wireless broadband expertise of all ERF Wireless' other divisions to provide major oilfield service providers with secure, cost-effective wireless broadband data transmission from drilling rigs and production wells worldwide, utilizing primarily Mobile Broadband Trailers (MBTs).

By investing in wireless broadband networks throughout many of the high production oil and gas regions of North America, the company is able to provide a unique data transmission capability for both drilling operations as well as ongoing production support: it anticipates that this investment will generate significant recurring revenue from the oil and gas industry.

Wireless Messaging Services (WMS)

WMS provides wireless broadband and fiber-to-the-home (FTTH) network design and implementation in exclusive gated communities, and manufactures and supplies high-power infrastructure equipment to the paging and mobile industry. It also owns and operates a wide-area messaging service (paging retail).

Products & Markets

Oil & Gas: The Digital Oilfield

The digital oilfield is a needed catalyst for the industry: it can be an avenue to new areas of innovation, helping companies reach previously off-limit reserves inexpensively and safely. At the heart of a digital oilfield is a reliable, fast, and cost-effective means of communication. ERF Wireless has the solutions.



Source: ERF Wireless, Inc.

As the long-term demand for oil & gas continues to grow, exploration and production consistently moves into more remote environments to meet this need. As a result, companies have been forced to change the way they operate. One approach is to achieve a “digital oilfield.”

Every major private-sector oil company has a digital oilfield initiative in place – Shell’s Smart Fields, BP’s Field of the Future, and Chevron’s iFields, for example – as do most large national oil companies, including Saudi Aramco, Petrobras, and Kuwait Oil Company. The industry is projected to spend more than US\$1 billion over the next five years on digital oil field investments, including hardware, software, and services.

The digital oilfield is a suite of interactive and complementary technologies that enable companies to gather and analyze data throughout the job site. It can include “intelligent wells,” which have fiber-optic sensors buried in the drilling apparatus, controlled manually by operators on the surface or automatically through closed-loop information systems. These sensors transmit a constant stream of data about the well and its environment, enabling operators to respond to shifting circumstances in real time. For instance, they can adjust fluid pressure or valve settings as the drilling surface becomes more or less permeable. Digital oilfields can also have “advance

alarming” systems, which predict performance levels and warn of potential equipment failure. In a digital oilfield, real time data collection, and intelligent controls are combined to improve recovery, accelerate production, reduce downtime, and reduce the number of on-site engineers required to oversee the operation.

At the heart of a digital oilfield is a reliable, fast, and cost-effective means of communications. Over the past several years, oil and gas companies have significantly increased drilling activity in remote areas throughout the U.S: accelerated drilling operations in remote areas has created the challenge of delivering large files of daily drilling data to home offices for analysis and management. *ERF Wireless provides a variety of wireless broadband products and services to oil & gas companies and oilfield service companies that offer a combination of speed, deployment, mobility, increased bandwidth, and very competitive pricing.*

Oil and gas companies have historically relied on cellular and satellite communications to transmit data from the well site to the home office. These technologies, however, can be very expensive and often suffer from high latency (a delay due to the time required to send the data to the satellite and back) and slow upstream data rates (often averaging just 128Kb). This latency can interrupt the fluency of voice communications and make machine-to-machine communications complex and unreliable.

ERF Wireless is able to provide low latency, high-speed communications to both static and mobile drilling sites at bandwidths 10-20x greater than current satellite solutions. The company’s service is specifically designed to meet the oil and gas industry’s environmental, operational, and safety requirements in the land-based oilfield, and the compendium of services that ERF Wireless provides offers a compelling solution for the mobile oil platform. The company’s wireless service provides a 1.5 Mbps or greater VoIP, facsimile and encrypted data transmission: the types of service that oil and gas customers require, especially in remote locations.



Source: ERF Wireless, Inc.

In fact, a White Paper, “Wireless Broadband: Apache Corporation’s Drilling Communication Solution,” featuring the wireless network solution implemented by ERF Wireless was recently published as “Real-Time Communications for Remote Rig Sites,” in the industry leading magazine, *World Oil*. Please refer to <http://www.worldoil.com/September-2009-Real-time-communications-for-remote-rig-sites.html>

Schlumberger Reseller Agreement

Through ERF Wireless' exclusive reseller agreement with Schlumberger, ERF is now in a position to be the provider of choice for high speed Internet bandwidth for managing drilling rig operations and supporting remote O&G field offices. Our scenario model indicates the contract could represent a \$40M run-rate in annual recurring revenue potential to ERF Wireless by 4Q 2011.

In January of 2009, ERF Wireless announced an exclusive reseller agreement with Schlumberger – the 800 lb. gorilla providing oilfield communications service. As Schlumberger writes in its current IPerformer® Wireless Broadband brochure, “In partnership with ERF Wireless, Schlumberger is now extending its best-in-class IPerformer® high-performing and dedicated connectivity solutions to the wireless domain....The IPerformer® service takes full advantage of the ERF Wireless network, one of the largest wireless broadband networks in North America. This network covers a large percentage of the oil and gas drilling and production areas in Texas, New Mexico, Oklahoma and Louisiana. In addition, through acquisitions and strategic partnerships, the ERF Wireless network has access to hundreds of communications towers in areas where no other provider has operational wireless networks – making expansion into these new areas fast and affordable.”⁽⁴²⁾

The company's current network, with minimal equipment deployment, is able to provide wireless services to certain oil and gas areas in the South Central United States, including operations in the Permian Basin located in west Texas and eastern New Mexico, the Barnett Shale Trend in North Texas, and the Cotton Valley/Travis Peak Formation (and correlative Hosston Formation) along the Gulf Coast of Louisiana.

Additionally, by using WiMAX-based equipment as an adjunct to its existing fixed-wireless networks, ERF Wireless intends to create an even more compelling service offering to the oil and gas industry, including enhanced nomadic and portable data and video services. The advantages of deploying WiMAX technology based on a global standard include higher data speeds, greater spectral efficiency, advanced nomadic services with self-installation features, global economies of scale and forward compatibility with the mobile WiMAX (802.16e standard). In addition, with the certification of network standards and profiles to standards, network equipment costs should continue to decrease. The resulting interoperability of hardware will not only accelerate downward pricing, but should also afford WISPs greater vendor selection and potential roaming revenues.

Further, as opposed to the wireless communications service in an airport or home or office Internet, there are few limitations on the amount of data that can be transferred. ERF Wireless service is non-contended, which means that every single individual site

can receive the full 1.5 Mbps. In addition, because the company's service uses a range of protocols, entire networks of data can be transported from the well site to the home office. This enables companies to reduce the number of personnel located at the well site, while providing fast, reliable, real time drilling and reservoir performance data.

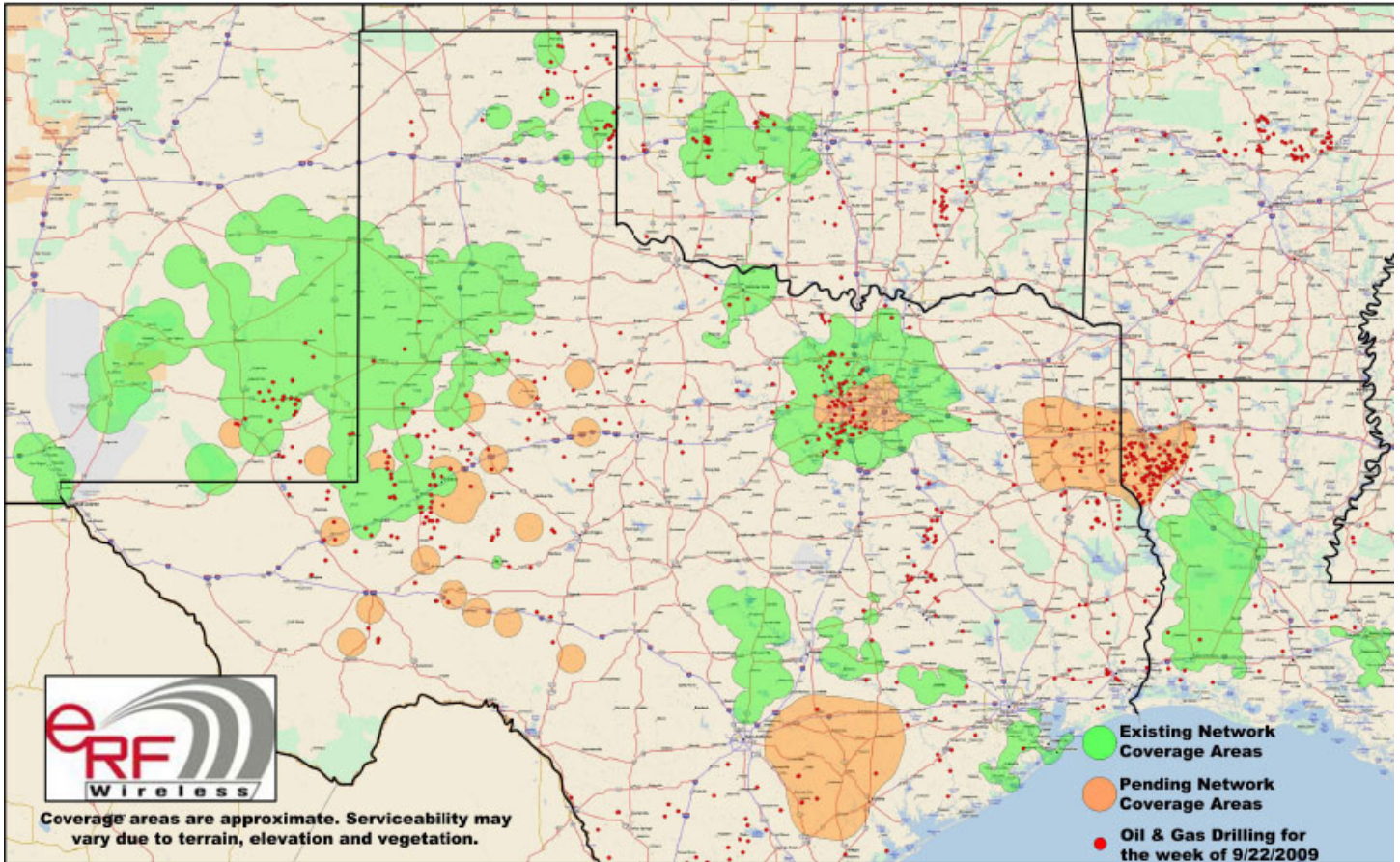
Highlights of the Schlumberger Reseller Agreement

- ERF Wireless is the exclusive provider of wireless broadband to Schlumberger for the North American oil & gas markets (including offshore).
- Schlumberger exclusively resells the ERF Wireless broadband products and services in North American oil & gas markets under Schlumberger private branding.
- Three year initial term with two one-year extensions.
- Schlumberger guaranteed minimum revenues for up to 1,077 combined wireless circuits over the 36-month term, the circuits to be established in North America from a combination of mobile broadband trailers (MBTs) and modified mobile vehicles. The current cost per circuit of these wireless circuits using the existing satellite technology is many thousands of dollars per month.
- Schlumberger's exclusivity is subject to minimum yearly purchase commitments.
- In addition to supplying the wireless circuit connectivity, ERF Wireless will provide the manpower and resources to modify approximately 750 Schlumberger mobile vehicles.
- 67% guaranteed minimum market penetration of all active drilling locations in existing ERF Wireless coverage areas;
- 50% guaranteed minimum market penetration in all newly acquired wireless coverage regions needed to provide the services specific to Schlumberger defined regions.
- ***Scenario modeling indicates the revenue potential from the Schlumberger contract could represent a \$40M run-rate in annual recurring revenue in 4Q 2011.***

Please note that activity in the oil & gas industry is related to the demand, supply, and pricing of these commodities, driving exploration and production activity. While activity was depressed in 2008/early 2009 due to global economic conditions, as the economy recovers and prices have improved, activity in the oil field has increased. Any dramatic pick-up in activity in E&P in the US and Canada could have a materially positive impact on communication needs, resulting in ERF Wireless revenue in the O&G Division outpacing even our more aggressive of the three scenarios.

Exhibit 8: ERF Wireless Current Oil & Gas Network Coverage – U.S. Only

Canadian Areas of Coverage by ERF Wireless not included with this map



Source: ERF Wireless, Inc.

Regional Banking Industry

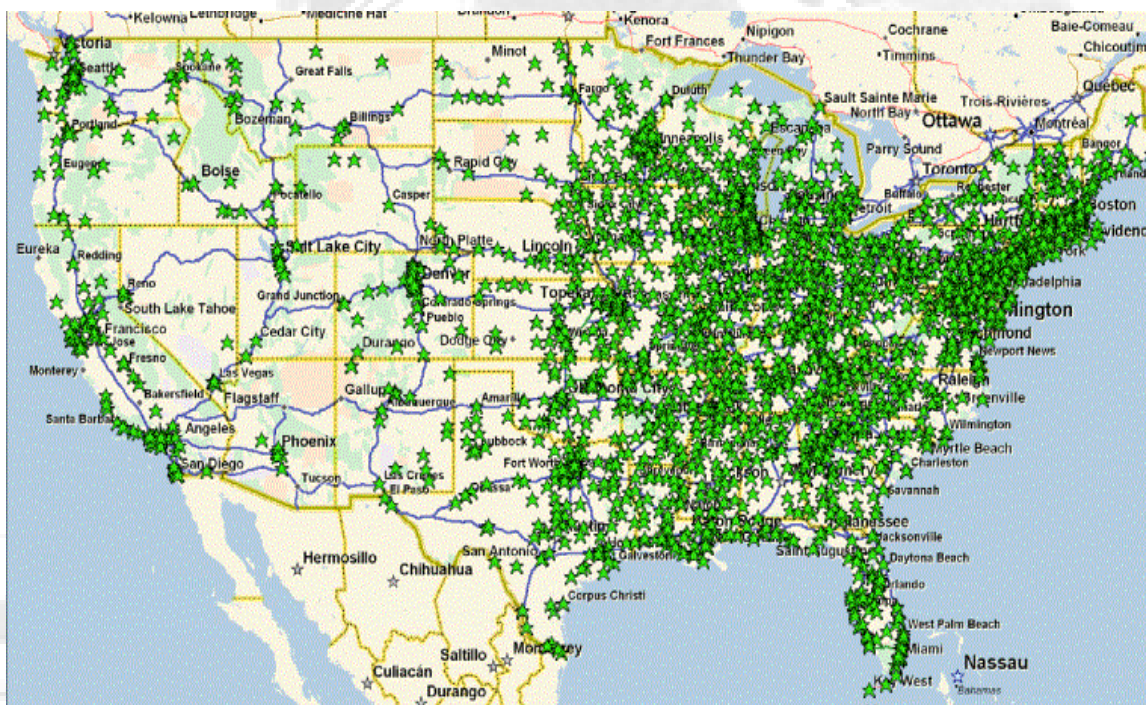
There are 8,500 community banks in the U.S. The market reach for ERF Wireless' Enterprise Network Services' products and services for regional banks extends nationwide and consists primarily of 2,500 community banks with 5 - 50 branches. The "sweet spot" in the market is financial institutions with at least 10 branches and assets between \$200 million and \$9 billion. There are approximately 1,800 such community banks in the U.S. that fit these parameters.

With the advent of Check21 imaging, VoIP and other bandwidth-intensive applications, financial institutions are finding that traditional point-to-point T1 circuits are no longer sufficient to meet their data communications needs. Upgrading their data circuits to dual T1s (3Mb) in some locations can cost as much as \$2,300 per branch per month, plus the cost of upgraded communications equipment and routers.

With secure, next-generation data connectivity through its BranchNet, US-BankNet and WiNet solutions, the Enterprise Network Services segment of ERF Wireless provides regional banks and financial institutions an extremely cost-effective way to replace all of their recurring T1 and other telephone company costs with a one-time capital investment that can typically be recovered in less than three years.

Banking institutions have traditionally leased telecommunications circuits versus owning their own infrastructure. With regulatory acceptance of the ERF Wireless CryptoVue™ Network Security Appliance, banks can own their own networks – and create an additional revenue stream from that network.

Exhibit 9: U.S. Community Bank Market



★ = Community Bank Charter Locations

Source: ERF Wireless, Inc.

Exhibit 10: Value of Typical Bank Contract



Source: ERF Wireless, Inc.

The Next Generation of Banking Network Services

ERF Wireless' Enterprise Network Services provides banks with the next generation of bank-to-bank data connectivity facilities through its US-BankNet and BranchNet Enterprise Network solutions. These high-speed telecommunications infrastructure networks provide both redundancy and expansion of computer LAN and WAN technology while allowing banks to own their own networks versus the traditional long-term lease from telecom providers. These networks also provide for fast delivery of data, text, voice and video information, as well as services across the entire enterprise or geographical area.

BranchNet

BranchNet wirelessly delivers enterprise resources and high performance to remote branches while tightly controlling costs and security. It enables banks to more quickly deploy office automation, digital and line-of-business applications to branch offices and remote workers.

The ERF Wireless broadband network connects all of a bank's branches to a central bank and can provide up to 30Mbps of continuous bandwidth as compared to the typical 1.5 Mbps of a T1 connection from the telephone company.

BranchNet wirelessly deploys retail banking, imaging, security and voice solutions quickly and easily. The solution is designed to provide the highest level of telecommunications performance to connect multiple LANs into an integrated high-speed WAN.

US-BankNet

This provides banks with secure, statewide microwave broadband networks for enterprise-class backbone applications. This unique application of microwave broadband technology provides financial institutions an extremely cost-effective way to share services with other banks and gain high-speed access to

service providers and correspondent banks within the state. Key areas of focus are:

- Replacing current connectivity between banks and the Internet
- Business continuity and redundancy
- Item image clearing capability to member banks
- Economic means to create “Buddy Banks”
- High-speed gateway to bank service providers

The US-BankNet provides a secure broadband gateway to the Internet for banks at a significantly reduced cost over traditional wireline providers. It also provides a gateway to implement Check21 “as it was intended to be.” Participating service providers can provide item image clearing for US-BankNet banks. Image exchange enables financial institutions to truncate transit items during their original capture, replace the original item with a digital image substitute, and electronically clear those items with other participating institutions and exchange networks.

US-BankNet connects financial institutions, service bureaus, third-party payment processing companies (and in the future the Federal Reserve) to provide image exchange and settlement capabilities.

Further, US-BankNet assists community banks in meeting regulatory compliance goals as well as enabling standardization of IT systems on a single high-speed gateway for greater simplicity, ease of use and consistency. With the ERF Wireless CryptoVue™ Network Security Appliance, data is protected in multiple ways and segmented across the entire system.

WiNet

Banks have made large lease payments to telecommunication providers for years. US-BankNet and BranchNet Networks turn the tables and enable banks to own their own communications infrastructure and enjoy the benefits of ownership. Telecommunications providers neglect many geographical areas served by community banks: this creates a significant void in quality high-speed network and Internet access. Banks with networks that have excess bandwidth capacity can meet this need. The inherent security features for the US-BankNet and BranchNet networks allow for segmentation of network traffic to securely allow unused bandwidth to be sold or leased to third-party providers – for a profit. Banks can create additional revenue streams from excess capacity (or offer special privileges to preferred customers).

Thus it is that the Enterprise Network Services Division typically enters into an agreement with financial institutions on behalf of ERF Wireless to resell all of their excess bandwidth capacity to commercial and retail customers within their coverage area under a revenue-sharing agreement, further

reducing the overall cost to the financial institution. These revenue-sharing agreements are administered by the Wireless Bundled Services Division of ERF Wireless.

CryptoVue™

CryptoVue™ provides ERF Wireless with a significant competitive advantage in serving the needs of community banks; the patent-pending highly technologically advanced product was developed both to provide security and to comply with stringent auditing standards and Federal Banking Regulations.

The ERF Wireless CryptoVue™ Network Security Appliance is



an enterprise-wide network security system consisting of software, site-based hardware devices, secret biometric crypto keys, and a collection of secure

servers to perform the end-to-end network encryption and enforcement of rigid controls. Developed to comply with both stringent auditing standards and federal banking regulations covering enterprise wireless network security, the patent-pending CryptoVue™ Network Security Appliance has successfully completed a testing program conducted by Motorola (MOT-NYSE-\$8.23) to validate its use with the MOTOw4 wireless broadband solutions in applications requiring secure wireless communications.

The abstract of the patent application filing included the secure, triple-controlled system for data over a network that protects against data theft or alteration by one or more corrupt insiders working together with outsiders. A combination of dual-control tamper-resistant routers, physical hardware keys and encryption keys enforces what ERF Wireless believes to be best practice security protocols with thorough auditing. A remote monitoring center provides a third level of control along with remote auditing and detailed change-control alerts.

Under a Product Affiliation Agreement signed with Motorola, ERF Wireless has made its CryptoVue™ Network Security Appliance available in two configurations to Motorola and Authorized Motorola Canopy Solutions Providers wanting to deploy secure wireless communications networks – one for financial applications and one for commercial enterprise applications.

Wireless Products

The wireless broadband radio equipment deployed by Enterprise Network Services is a special commercially-hardened version of the Motorola Canopy Wireless Platform configured to form point-to-point and point-to-multipoint network connections for the financial institutions that can be used in wireless backhaul, bridging and other data applications.

The point-to-point configuration can span distances of up to 35 miles. Distances of greater than 35 miles can be covered by daisy chaining the units across multiple relay towers. The point-to-point systems generally operate at 5.7 GHz and a raw data rate of 10 Mbps, 20 Mbps, or 45 Mbps with measurable data throughput rates of 7+ Mbps, 14+ Mbps, and 31+ Mbps respectively. Motorola also offers a 5.2 GHz point-to-point and point-to-multipoint system that ERF Wireless deploys on short-haul segments up to a distance of 10 miles.

ENS uses Motorola-authorized and FCC-certified custom-manufactured mounting hardware, tower struts, dishes, radomes and cabling to greatly extend the useful life and reliability of the system. While there may be many lower-cost transmission hardware solutions available, ERF Wireless' Enterprise Network Services adheres to the philosophy that only enterprise-class hardware should be utilized in enterprise-class networks.

Rural WISP: Wireless Services to Businesses and Retail Consumers

ERF Wireless' services are competitively priced to satellite broadband access, providing broader bandwidth, lower latency, and thus higher quality service. ERF Wireless is able to offer broadband Internet to communities and businesses that would otherwise be ignored or overlooked by Telco or Cable providers.

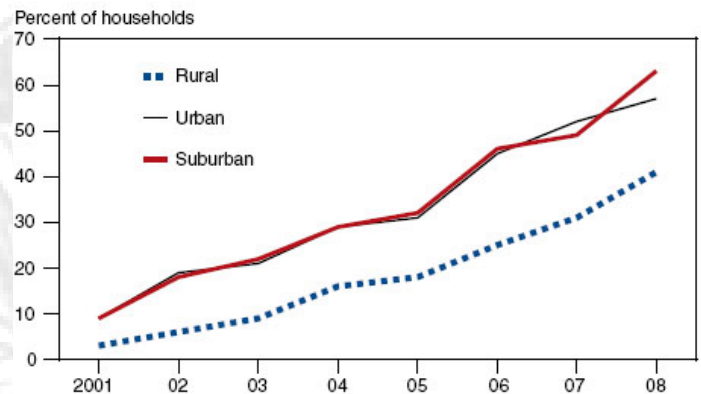
Wireless broadband Internet systems consist of a radio transmitter that sends a signal on a combination of radio channels to receivers located at or in homes and businesses. Wireless broadband Internet networks can be roughly categorized based upon which wireless technology (e.g. standards or proprietary) they utilize and whether they utilize licensed or unlicensed spectrum.

As detailed in the introduction, wireless broadband has begun a new stage of growth in the rural residential and enterprise markets, fueled primarily by technology improvements, consumer demand, and government stimulus spending and incentives. Rural areas in the U.S. have experienced a lower Internet penetration rate, and substantially less access to broadband, than the more densely populated urban and suburban areas. Broadband achieved a 46% penetration rate to homes in

the rural U.S. in 2008, up from 38% in 2007 and 31% in 2006. This represents growth of 21% and 23% annually, respectively. By comparison, 57% of urban residents and 60% of suburban residents currently have high-speed connections at home.

Exhibit 11: Home Broadband by Region

Trends in home broadband adoption by region



Source: Horrigan, 2008

Addressing the urban/rural broadband adoption rate difference, ERF Wireless' broadband Internet services are offered utilizing fixed point-to-multipoint wireless technology in the licensed and unlicensed spectrums to rural communities and industries. The company offers these services through its Wireless Bundled Services (WBS) Division to both business and residential customers within its network footprint without the use of terrestrial lines. This allows its services to cover rural or suburban geographical areas at a fraction of the cost of terrestrial-based broadband provided by cable modems or DSL lines. The company's services are competitively priced to satellite broadband access, providing broader bandwidth, lower latency, and thus higher quality service. ERF Wireless is able to offer broadband Internet to communities, businesses and industries that would otherwise be ignored or overlooked by other providers.

The company's current residential and business market is focused in the South Central U.S., where it has developed areas of wireless coverage through acquisitions and contracts in New Mexico, Texas and Louisiana. The company's WISP business is currently focused on the oil and gas industry, financial institutions, and its residential consumers.

ERF Wireless currently has in excess of 10,000 wireless broadband customers with monthly rates varying from \$50 to \$3,500 per month and is on target to achieve a \$1.0M monthly run-rate in WISP revenue by 1Q 2010.

Business Strategy

With the new Schlumberger oil and gas contract in place, ERF Wireless is clearly executing its vertical market growth strategy, leveraging the growing network to serve a broad business base with expanded service offerings.

Wireless broadband provides a versatile broadband communication medium that is more economical than a wired solution, is faster to implement, and can be configured for multiple applications. The market for rural wireless broadband products and services has grown dramatically: broadband wireless has been in use for several years, but only with the advent of industry standards has it been possible to link the many small systems that have grown up into a much more robust wide-area network that will likely accelerate the growth of the wireless broadband industry.

Vertical Market Penetration. Within this framework, ERF Wireless has focused on building out its network via acquisitions, partnerships, and construction. Importantly, having put together a network providing services to a large retail and local small business consumer base, ERF Wireless is now concentrating on vertical market penetration, utilizing network capacity to serve large enterprise needs via expanded service offerings.

Executing this vertical market penetration strategy, in January 2009, ERF Wireless entered into an agreement with Schlumberger to exclusively resell ERF Wireless' broadband and WiMAX terrestrial communications products and services in the North American oil and gas market.

Initially, the company plans to provide wireless services for Schlumberger as it contracts with oil and gas operators in areas that are within the ERF Wireless network or that the company can expand its network to cover. The long-term strategy is to be able to offer ongoing services to the operator of the well as well as the owner of the gathering system or pipeline as the company expands its offerings further downstream to the industry. In its relationship with Schlumberger, ERF Wireless plans to position itself as the backbone of the digital oilfield.

Further, where appropriate, network coverage can be used to provide services to other local market businesses, municipalities, and retail consumers.

Specific to its financial institutions markets, the ERF Wireless banking industry strategy encompasses:

- 1) Initially ERF Wireless signs a BranchNet contract with an individual bank to design and construct a secure, high-speed wireless IP network connecting all branch locations to the

bank's operations center. The bank pays for the construction of the network and subsequently ERF Wireless builds, monitors and maintains the network under a long-term contractual arrangement.

- 2) Secondly, ERF Wireless signs a US-BankNet contract with a bank to provide access to a wireless high-speed Internet backbone, owned by ERF Wireless, that connects the bank to various service providers, correspondent banks, check clearinghouses, emergency networks, and in the future the Federal Reserve. The bank pays a monthly access fee to ERF Wireless under a long-term lease to utilize US-BankNet.
- 3) Thirdly, ERF Wireless signs a WiNet contract with the bank to sell the bank's excess wireless bandwidth as wireless Internet service to the commercial and residential customers in the vicinity of each of the bank's branch locations. The WiNet contracts are on a licensing arrangement with the bank that produces recurring revenue for both ERF Wireless and the bank as various ISP services are marketed.
- 4) Additionally, ERF Wireless sells a variety of add-on services to the bank made possible by the high-speed network supporting the BranchNet, US-BankNet and WiNet systems. These add-on services include: VOIP telephone services, video conferencing and document imaging, among others.

Executing this strategy, ERF Wireless has long-term contracts with five banking networks in place, and has 57 banking network opportunities in process, aggregating 872 branches, with initial design and construction contract values of \$103 million and potential recurring monitoring fees of \$1.1 million per month.

Acquisition Strategy

ERF Wireless' acquisition strategy is a core component of its business plan, distinguishing the company from its peers by providing it with first-in-class network operations, increasing market share, experienced management and personnel – all while enabling ERF Wireless to implement its vertical markets growth strategy rapidly and profitably.

Acquisitions are a fundamental component of ERF Wireless' growth strategy. ERF Wireless seeks to acquire strategically located, profitable wireless broadband networks in areas where the company has existing or planned activity with oilfield, banking, or commercial enterprise customers that function as anchor tenants in the company's overall strategic plan.

Importantly, these acquisitions result in a rapid, accretive expansion of the company's network footprint and field service capability.

The company's acquisition strategy provides vital avenues of expansion and growth, including

- Growth in subscriber base and profitable recurring revenue;
- Growth in network infrastructure at an immediately accretive price;
- Acquisition of proven management and support teams
- Enables ERF to execute its vertical markets growth strategy within the expanded coverage regions.

To date, ERF Wireless' WISP subsidiary has acquired and assimilated a total of 15 WISPs, with coverage that now exceeds 160,000 square miles in Texas, New Mexico, Louisiana, and parts of Oklahoma. With these acquisitions, the recurring revenue base from WISP operations is closing in on \$500,000 per month, and is both profitable and growing.

ERF Wireless pays approximately 1x revenue in a combination of cash, notes and restricted stock. The acquisitions typically bring 40% gross profit and 15% to the bottom line. While the increase in subscriber base is important, critical to the company's acquisition decision is the footprint and personnel. Essentially, ERF Wireless is building out its network footprint, management and service personnel, growing its commercial and residential subscriber base, generating recurring profitable revenues in the process.

The ERF Wireless Difference: There Is no Competition!

ERF Wireless stands head and shoulders above traditional WISP competition with its superior business model and unique growth opportunities.

While there are many WISP operators in the U.S. (as noted in the Introduction, the estimates range from 1,500 to as many as 8,000), there are only three publicly traded WISP "pure-plays." These are ERF Wireless, SpeedNet, trading under the corporate KeyOn Communications (KEYO-OTCBB-\$2.31), and Internet America (GEEK-OTCBB-\$0.52). Notably, ERF Wireless stands head and shoulders above its competition – public or otherwise – with its superior business model and unique growth opportunities. Distinguishing ERF Wireless as a standout in what some may consider its "industry peer group," is the company's vertical market growth strategy. With products designed for specific industries in order to attract and generate higher-margin recurring revenue, comparisons to other WISP operators simply are not appropriate. ERF Wireless, through both its vertical market penetration and acquisition strategies, is

currently addressing specifically the oil & gas and financial institutions markets. With the Schlumberger contract and the company's unique CryptoVue™ technology, no other WISP has similar growth opportunities as their strategies are focused on simply increasing the subscriber base, with no specific industry focus or proprietary technology-enhancing capabilities to address such markets.

Business Development Activities

Through the agreement with Schlumberger, ERF Wireless is developing a premiere oil and gas sales channel for its wireless broadband that will be a powerful catalyst for its vertical markets growth into the O&G sector.

Milestone Market Development Activity

WiMAX License: ERF Wireless Registered Approximately 90 New Wireless Broadband Tower Sites with FCC in O&G Production Regions under Nationwide WiMAX License
September 25, 2009

ERF Wireless obtained FCC approval for approximately 90 WiMAX 3.65 GHz transmission locations, providing directed broadband coverage for the most strategic oil and gas development production areas in the U.S. Complimenting existing ERF Wireless broadband coverage, these sites are specifically targeted by ERF to enhance its already accelerated technology deployment and revenue growth in the sector. Several locations are already in operation and producing revenue: the new technology will make broadband services available to almost 30,000 square miles of additional energy exploration and production geography and reach almost half of the drilling sites currently in operation in the U.S.

Stimulus Funding: ERF Wireless Submits First-Round Application for \$24.6M of Broadband Stimulus Funding
September 10, 2009

ERF Wireless engaged consulting firm ACRS 2000 Corp. of Oklahoma City, OK to assist the company in the preparation of all of its applications for portions of the current administration's initial \$4 billion broadband stimulus program. ERF Wireless submitted a first-round Broadband Initiatives Program (BIP) loan/grant application for Louisiana and parts of East Texas totaling \$24.6 million. It is exclusively a 'last mile' application that covers 50 service areas in the most rural and economically challenged regions of those states, with a population size in the regions covered of approximately 591,346. Additional BIP applications in conjunction with other applicants that specify ERF Wireless as the lead vendor and operator for the 'last mile' portion of their networks have also been submitted for select communities.

Schlumberger Exclusive Reseller Agreement: U.S. & Canada

January 16, 2009

ERF Wireless Inc. and Schlumberger entered into an exclusive agreement for delivery of wireless broadband services throughout North America. Schlumberger will extend the footprint of its market leading IPresence™ and IPerformer™ services using ERF Wireless comprehensive high-speed low-latency wireless and WiMAX coverage.

LA State Police Tower Infrastructure Agreement: ERF Wireless Signed Cooperative Endeavor Agreement with Louisiana State Police to Build \$5M Statewide Wireless Network

November 16, 2006

The network, to be known as Louisiana BankNet, will be owned and operated by ERF Wireless, with the tower infrastructure provided by the Louisiana State Police. The \$5M network will provide wireless broadband connectivity to the Louisiana State Police and to the regional banks that ERF Wireless currently serves and will serve in the future. The network will also support WISP services to many underserved areas of Louisiana.

Management Appointments

For further information on the background of Senior Appointments joining the team, please refer to "ERF Wireless Management," page 29.

Energy Sector Expert Douglas Gibson joins ERF Wireless team in Oil and Gas Division as Consultant. 5/18/09

Mike Jones appointed Chief Technology Officer. 4/21/09

Jay Bilden, former VP Operations and Network Development of Qwest Transmission, Inc. appointed as Senior VP – Engineering & Network Operations at ERF Wireless. 12/11/09.

John Nagle appointed CEO of ERF Wireless Oil and Gas Services Division. 8/7/08

Management Team Supplemented and Restructured as focus shifts from Product Development to Growth & Full Production. Notably, Greg Smith became EVP of ERF Wireless and CEO of Enterprise Network Services subsidiary (from ERF Wireless CFO) with primary responsibilities over M&A and the banking network subsidiary. 3/24/08

Mike Jones joined ERF Wireless Board of Directors. February 29, 2008

Dr. Dean H. Cubley appointed CEO. 10/17/06
October 17, 2006

Acquisitions

ERF Wireless' WISP subsidiary has acquired and assimilated a total of 15 WISPs, with coverage that now exceeds 160,000 square miles in Texas, New Mexico, Louisiana, and parts of Oklahoma.

Frontier Internet LLC and iTexas.net. 6/1/09

Granbury, TX. These acquisitions bring a combined customer base of more than 1,800 customers and \$1.3M in profitable recurring annual WISP revenue. Purchased primarily for assets/infrastructure location in the North Texas Barnett Shale oil and gas market service areas.

These transactions encompass all of Frontier's and iTexas' already integrated infrastructure equipment, including 16 towers strategically located south and southwest of Fort Worth, TX. These towers provide ERF Wireless access to a large geographic area that includes coverage in Hood, Somervell, Johnson, Erath and Parker counties within the Barnett Shale area that covers approximately 6,000 square miles of natural gas and oil production territory. The acquisitions also provide the company a new wireless footprint that allows it to market its unique suite of wireless products and services to extensive oil and gas exploration and production locations, thousands of businesses and residents, and a number of regional and community bank charters.

Centramedia Inc. 12/31/08

Pampa, TX. This acquisition includes the customer base of more than 1,700 customers and over \$1.2M in profitable and recurring annual revenue, including certain wireless broadband projects for major oil and gas companies in the region. The transaction also encompasses all of Centramedia's network infrastructure equipment, including 26 towers strategically-located northeast of Amarillo, TX that are adjacent to ERF Wireless' existing West Texas network of approximately 75 towers headquartered out of Lubbock, TX. This acquisition provides ERF Wireless access to a large geographic area that includes multiple counties in the Texas Panhandle area covering approximately 10,000 square miles of natural gas production territory: it also provides the company a new wireless footprint that allows it to market to more than 50 oil and gas drilling locations, thousands of businesses and residents, and a number of regional and community bank charters.

Three 2007 acquisitions:

- Added approximately 6,000 customers;
- Added more than \$2.5M in annualized recurring revenue;
- Covered eight counties in Central Texas;

- Gave the company a footprint covering approximately 4,000 square miles when integrated with the company's existing Central Texas WiNet and US-BankNet System;
- Provided a target market of more than 25,000 businesses, over 600,000 residents and more than 42 regional and community bank charters, aggregating approximately 500 branch locations;
- Provided access to 12 towers, in addition to 78 towers the company already controlled across the state of Texas.

Total Access Network. 12/19/07

Elgin, Texas. With this acquisition, ERF Wireless acquired approximately 500 current customers and all of the network infrastructure equipment of Total Access, including approximately 12 tower location strategically located southeast of Austin, adjacent to existing WISP networks already owned by ERF Wireless. More importantly, the Total Access network footprint covers a significant portion of one of the ERF Wireless BranchNet bank networks.

TSTAR Internet. 10/31/07

Central Texas. The acquisition of TSTAR Internet's assets and operations included more than 3,000 customers, \$1.2M in profitable annual recurring revenue, and 22 tower in five counties in Central Texas.

Momentum Online. 10/17/07

Central Texas. This acquisition added more than 2,500 customers, in the company's northern Galveston County, TX area, \$1.2M in recurring annual revenue, and approximately 33 tower locations in five counties, covering approximately 3,200 square miles.

Home Wireless Company. 2/7/07

Kemah, TX

VectorLink (wireless assets acquired). 12/20/06

Waller, TX. The acquisition was of the wireless assets of VectorLink, and included all current wireless customers, network infrastructure equipment and towers of the VectorLink operational unit located northwest of Houston and surrounding communities of Waller and Hempstead along the strategically located U.S. 290 corridor between Houston and Austin. The service area of approximately 300 square miles covers a population of more than 100,000 potential business and residential customers.

Southwest Enhanced Network Services, L.P. (dba The Door to the Internet, "The Door"), a wireless broadband affiliate of Windstream Corp. 12/15/06

Near Lubbock, TX. The Door brought more than 1,500 customers and over \$1.0M of recurring annual revenue. Also acquired were 59 towers. The Door acquisition covers

approximately 25,000 square miles of coverage with a population of more than 400,000 businesses and residents in an area adjacent to Lubbock, TX and the surrounding Panhandle and New Mexico communities.

36db.com. 10/20/06

Brazoria County, TX. The acquisition includes all of the current customers and equipment on the 36db.com network and provides ERF Wireless access to a geographic area adjacent to Houston, TX that covers approximately 1,500 square miles.

Expansion

New Office in Baton Rouge, LA

Opened: February 25, 2009

As the company's second most active sales area (next to Texas), the new ERF Wireless office was opened to support its growing operations in the state. The office will support the company's growing oil and gas customer base that is being developed in Louisiana and many other locations in North America as a result of the exclusive reseller agreement between ERF Wireless and Schlumberger. The Baton Rouge office will further support the statewide US-BankNet wireless network that ERF Wireless has been building since 2006 under a cooperative agreement with the Louisiana State Police and already includes four large banking institution wireless networks with branch operations extending across major portions of the state.

New Oil and Gas Division formed

August 7, 2008

Utilizing the resources of its rapidly expanding wireless broadband networks in Texas, New Mexico and Louisiana, ERF Wireless formed the new division to actively supply specialized products and services to oil and gas customers through the new entity. Leveraging the resources of its Enterprise Network Services Division and its Bundled Wireless Services Division, the new Oil and Gas Division is an example of the company's business strategy of creating multiple vertical market revenue streams, maximizing ROI from its core of wireless networks.

ERF Wireless acquired rights to acquire largest transmission tower facility in Galveston County, TX

October 11, 2007

The contracted tower will serve as the wireless transmission hub for most of the ERF Wireless banking and wireless broadband networks in the southeastern part of Texas. The 1,120-foot tall tower and associated real estate is just south of Houston and provides a direct line-of-sight path to a circular ground level footprint ninety miles in diameter that includes all the cities in three counties, with a total population base of more than five million people.

Technology**WiMAX Strategy for Expansion of WISP & O&G Markets**
October 31, 2008

ERF Wireless obtained a nationwide license for operation in the 3.65 GHz WiMAX band and is partnering with companies that will make additional licensed spectrum available in the 2.5 GHz band. The adoption of WiMAX technology is primarily for its ability to eliminate the problems of frequency congestion and interference, particularly in areas where the unlicensed spectrum is under heavy usage. "For example, many of the larger oil and gas companies recognize that the availability of a new, licensed high-capacity wireless technology such as WiMAX will provide a secure, robust and cost-effective data pipeline that's essential for the expansion of wireless broadband into their most active exploration, drilling and production areas," said Dr. Cubley, CEO. A further consideration was the observation of dramatic improvements in both the technology and its cost-effectiveness.

Filed two additional new patent applications on CryptoVue™ Technology that further protect the basis of its leading-edge position in the secure wireless broadband bank networking industry. December 5, 2006

ERF Wireless, Inc. Management

The principals of ERF Wireless management have been in the network integration, triple-lay FTTH, IPTV content delivery, and Internet banking & encryption technology for more than 20 years. The founders of ERF Wireless have extensive experience in the conduct of private and public companies, having founded and operated more than twenty companies over the past 30 years.

Dr. H. Dean Cubley, Chairman & CEO, 68, has over 44 years of extensive experience in the field of telecommunications. He has served as CEO of ERF Wireless Inc. since October 2006 and as Chairman of the Board from 2004 when he founded the company. Prior to joining ERF Wireless, Dr. Cubley ran Eagle Broadband, Inc., where he served as Chairman of the board from 1996 - 2004 and as CEO from 1996 - 2003. From 1993 - 1996, Dr. Cubley served as Vice President of Eagle Telecom. From 1984 until 1993, Dr. Cubley was active in the telecommunications industry serving as a principal in numerous high technology companies including Metrocast, Microlink, TI-IN Network, and Paging Products International.

Dr. Cubley's extensive experience also includes his work with NASA, where from 1965 to 1984, he worked for the NASA Manned Spacecraft Center (later to become the Johnson Space Center) as a senior engineer or manager on the Gemini, Apollo, and Shuttle programs. Dr. Cubley was the NASA Antenna

Subsystems Manager for all manned spacecraft programs for seven years during the Apollo Program with full project control for over \$200 million worth of equipment for each Apollo flight. In addition, Dr. Cubley was the NASA Project Manager on the \$500 million Apollo 17 Surface Electrical Properties Experiment that was searching for water on the surface of the moon in 1972. During his career, Dr. Cubley has authored or co-authored over fifty publications. In addition, he is named on a total of 20 patents and pending patent applications.

Dr. Cubley received a Bachelor of Science degree in electrical engineering from the University of Texas in 1964 and a Master's degree from the University of Texas in 1965. In 1970 Dr. Cubley received his Ph.D. in electrical engineering from the University of Houston. Since 1977, Dr. Cubley has been actively engaged in the commercial telecommunications industry and has been instrumental in many of its technological advancements.

Richard Royall, CFO and Director, 62, joined ERF Wireless in 2008. In addition to his position with ERF Wireless, Mr. Royall is a partner in Royall & Fleschler, a Texas certified public accounting firm with expertise in SEC registrations and filings, SOX compliance, and system development for small and emerging companies. He has practiced as a Certified Public Accountant for 37 years.

Mr. Royall has served as a partner in the international accounting firm of Laventhol & Horwath that specialized in auditing and SEC registrations and filings; as Chief Financial Officer from 1996 - 2004 for Eagle Broadband, Inc.

Mr. Royall is currently a member of the Houston Chapter of CPAs and the American Institute of Certified Public Accountants. He is a former military officer in the U.S. Army and received his BBA from the University of Texas at Austin

R. Greg Smith, Executive Vice President and Director of ERF Wireless and CEO of ERF Network Services Subsidiary, 50, has served in these positions since 2008 and 2004, respectively, and as CEO of ENS since March 2008. He served as CFO from 2004 - 2008, and as CEO from 2004 - 2006. Mr. Smith's professional background includes 25 years of executive management experience.

Prior to joining ERF Wireless, Mr. Smith was employed by Eagle Broadband, Inc. where he was recruited to assist in the restructuring of numerous Eagle subsidiaries. Mr. Smith served in dual roles as CFO and as CEO of certain Eagle subsidiaries from early 2002. Prior to Eagle, Mr. Smith spent 13 years in various corporate finance functions including CFO in the healthcare informatics market with ADAC Healthcare Information Systems, Inc., and predecessor entities. While at ADAC, Mr. Smith gained extensive experience in directing restructurings and turnarounds as well as completing numerous mergers and acquisitions. During 1994 - 1998, Mr. Smith

assumed the lead role in completing the acquisition of DuPont's radiology information systems business and integrating ADAC's other radiology business units, resulting in a market leadership position. While serving as CFO of ADAC Healthcare Information Systems, Inc., ADAC was selected as the first healthcare company to achieve the Malcolm Baldrige National Quality Award in 1996. ADAC was publicly traded under the symbol "ADAC" on the Nasdaq National Market exchange until being acquired by Royal Phillips Electronics in a transaction valued at approximately \$426 million in December 2000, following its radiology and image management business being acquired by Cerner Corporation in November 2000. Following his successful career at ADAC and prior to joining Eagle Broadband, Inc., Mr. Smith was recruited to lead the restructuring of a privately held electronic messaging company. Mr. Smith's primary role was in leading the completion of a complex SEC registered rescission offering to overcome a \$16 million SEC rescission liability that was created by the founder of the business and prior management by integrating several private placements.

Michael R. Jones, Chief Technology Officer and Director, 54, has served as CTO of ERF Wireless since April 2009 and as a director since May 2008. He is a 30-year veteran of the telecom industry. Prior to joining ERF Wireless, he served as Senior Vice President and Chief Technology Officer of Broadwing Communications, a nationwide service provider, where he was employed since 1997. Prior to that, Mr. Jones held a number of senior executive and management positions at Diamondback International, MCI, and GTE. His major focus throughout his career has been the design, implementation and operation of major networks, including fiber optics, microwave and packet-switched systems.

Bartus H. Batson, Director, 66, has served as a Director of ERF Wireless since January 2005. Dr. Batson has served as President, Chief Executive Officer and Chairman of X-Analog Communications, Inc. since March 1992. Prior to that, Dr. Batson served as president of X-Analog's predecessor company, CADSA Inc. Dr. Batson has over 40 years of experience in all fields of telecommunications with a major focus in satellite communications and wireless systems.

In 1963, he joined the NASA Manned Spacecraft Center (now the Lyndon B. Johnson Space Center) in Houston, Texas, and worked in Flight Operations and Analysis on Guidance, Navigation and Command Systems for the Gemini Program. From 1964 - 1968, he served in the U. S. Army as an electronics instructor in the Artillery and Missile School at Fort Sill, Oklahoma. In 1966, he returned to the Manned Spacecraft Center and worked until 1983 on a wide variety of problems pertaining to statistical communication theory as applied to communications systems for manned spaceflight programs, including Apollo, Apollo-Soyuz, Skylab, and the Space Shuttle. He personally developed the conceptual designs for the Space

Shuttle S-band and Ku-band communications systems, which incorporated several state-of-the-art advances in the areas of modulation, coding, synchronization, and spread spectrum, at data rates of up to 50 Mbps. As Manager of the Systems Analysis Office of the Tracking and Communications Division, Mr. Batson was responsible for communications, tracking, instrumentation, and data systems engineering and analysis for the entire Space Shuttle Program.

Dr. Batson received a B.S. degree in electrical engineering from Arlington State College (now the University of Texas at Arlington) in 1963 and his M.S. and Ph.D. degrees in electrical engineering from the University of Houston in 1967 and 1972, respectively.

Robert McClung, President, ERF Wireless Broadband Services Subsidiary, 55, has served in this position from October 2007. He is a seasoned executive in data communications with over 15 years experience in the Internet Services Industry. ERF Wireless acquired his company, Momentum Online Internet Services (October 2007) where he served as owner operator for eleven years prior to the acquisition.

As founder and CEO of Momentum Online in 1996, he developed a unique understanding of the challenges faced in delivering Internet access to rural and underserved markets. In 1999 Momentum Online was an early adopter of fixed wireless broadband technologies and quickly became one of the largest providers in Texas and among the top 20 in the country.

Robert McClung was also founder, President, and Chief Operating Officer of Broadband Horizons in 2004, a pioneer in Broadband over Power Line (BPL) technologies. Due to his involvement in many early-stage activities of the industry, Mr. McClung became a recognized leader in the BPL community. Being present at the first public launch of BPL services in the USA at Manassas, Virginia, in February 2004, he went on to deploy the first Broadband over Power Line networks west of the Mississippi River, including four successful BPL deployments in Texas. Mr. McClung was involved in the definition and drafting of Texas Senate Bill SB5 in 2005. This legislation defined the deployment of BPL technologies in Texas. As the first BPL legislation in the U.S., Texas Senate Bill SB5 was used as the template for BPL legislation nationwide.

Mr. McClung's prior business experience includes owning and operating Train Time Music, a BMI affiliated publishing company, and serving as Director and Vice President of Palindrome Records, Inc., of San Antonio, Texas.

John Nagel, President, ERF Wireless Oil and Gas Subsidiary, 49, assumed this position in August 2008. Prior to this position, Mr. Nagel coordinated construction and deployment of wireless infrastructure for the company's banking

customers in its Enterprise Networking Services Division as well as the internal expansion of the network operating center and the acquired networks. Mr. Nagel has served as an employee of the Company since May 2004. He has provided strong leadership to a variety of engineering disciplines across diverse industries.

As CEO of the Oil & Gas Subsidiary (a Division of ERF Wireless Broadband Services), he created a new profit center focused on providing high-speed wireless Internet to oil & gas drilling operations. He negotiated exclusive reseller agreements with Schlumberger for the U.S. and Canada whereby Schlumberger will resell ERF Wireless' services exclusively into the oil and gas market. He developed the Mobile Broadband Tower System (MBTS) specifically to meet the requirements of mobile drilling rigs, wire line vehicles, etc.

Prior to his service with ERF Wireless, Mr. Nagel held several positions at Eagle Broadband, Inc. As Vice President of Engineering and Business Development from 2001 - 2005, he managed the engineering team that designed Fiber-to-the-Home networks. In addition, he supervised construction teams to install the outside plant and Network Operations Center; he managed business development relationships with IBM Global Services, SAIC, and Corning Cable Systems and many other technology partners that supported these developments, and he constructed and operated three separate voice, video, and data Central Offices.

As Director of R&D at Eagle Broadband from 1997 - 2001, he secured a three-year, \$2.5 million research contract with Compaq Computer Corporation for RF amplifier and digital controls and managed the research team that included University of Houston engineering professors. He also designed and developed a new line of high powered- (500 Watt) RF amplifiers for wireless communications. He managed in-house manufacturing line and all outside vendor relationships both U.S.-based and European/Asian accounts.

His prior experience included serving as Project Manager and Business Development at Eagle Aerospace, Inc., from 1987 - 1993 as well as employment at General Electric and Monsanto Chemical Co.

Mr. Nagel holds a Bachelor of Science degree in mechanical engineering from the University of Tennessee in Knoxville.

Douglas S. Gibson, Consultant, ERF Wireless Oil & Gas Subsidiary, joined the ERF Wireless team in April 2009. A world-class energy industry consultant, Mr. Gibson has operated between the oil centers of the world seeking the best and latest energy-related technologies. Mr. Gibson has an impressive resume of profitable results in company start-ups, development of corporate strategy, international selling and negotiations, and overall technology development. In the mid-1990s, Mr. Gibson founded Petrosol, generating over \$110 million in total sales through 2002. Petrosol, in 2000, became a partner of Sensa, which developed revolutionizing fiber optic sensing

technologies for use within the oil and gas industry. Schlumberger acquired Sensa in 2001. More recently, as founder and CEO of Fotech Solutions Ltd., Mr. Gibson led the company in raising \$13 million of private equity investment from Scottish Equity Partners, Energy Ventures and the Saudi Arabia-based Shoaibi Group. Fotech is developing patented fiber-optic acoustic and pressure sensor equipment for the oil and gas and security industries. Mr. Gibson also held the CEO position at Vibtech, a supplier of seismic recording systems to the oil and gas industry, where his charge was to build the company for sale. This resulted in a successful exit for \$65 million in 2006.

A proven innovator, Mr. Gibson has designed several electronic engineering products and continues to play a vital role in the energy sector, having served both the U.S. and Venezuelan governments. Mr. Gibson holds the distinction of being the first foreign national to become a consultant to the Venezuelan Minister of Energy and Mines in 1997. He has also served as Consultant to Executive Management at British Telecom. In his earlier days in the oil and gas industry, Mr. Gibson worked for Dresser Atlas, Halliburton, Geosource, and Western Atlas.

Brian Cubley, CEO, Wireless Messaging Services Division Subsidiary as well as ERF Wireless Inc. Director of Operations, 39, has served in these positions since September 2003. In his position, Mr. Cubley is responsible for all of the ERF Wireless day-to-day payables, receivables, purchasing, customer billings, contract administration, human relations, and all non-recurring special contracts and relationships. Prior to joining ERF Wireless Brian Cubley worked as a sales manager for Eagle Broadband from 2001 -2003 where he managed many of the company's large accounts in the area of multimedia set-top-box applications. For a portion of that time he co-managed the west coast regional sales office in the Los Angeles area and worked with customer accounts throughout the western region. Prior to joining Eagle Broadband Brian Cubley founded, owned, and managed a number of commercial businesses in the restaurant industry.

Jay Bilden, Senior Vice President Engineering & Network Operations, 49, has served in this capacity since joining ERF Wireless in November 2008. Mr. Bilden's responsibilities in this position include managing all of the new network construction for all of the ERF Wireless divisions and subsidiaries throughout North America. In addition, Mr. Bilden also manages the ERF Wireless NOC facilities and provides technical support to all of the WISP networks owned and operated by ERF Wireless. Prior to joining ERF Wireless Jay perfected his skills and expertise in telecommunications engineering and operations, as well as strategic business and network development, during his 28-year career with MCI, Southern Pacific Telecommunications, Qwest Transmission, and Qwest Transmission's successor companies where he began as a wireless Microwave Radio Transmission Technician and quickly

rose through the ranks to hold the positions of Regional Manager, Engineer, Director of Engineering and finally Vice President of Operations and Network Development. At Qwest Transmission, he was also a key participant in the planning and building of a wireless common carrier network that grew to be the largest privately held facilities-based wireless microwave radio network in the United States.

Financing

	2007	2008	1H 09	Total
Debt Convert.	\$1,009	\$3,000	\$320	\$4,329
Stock Sold	4725	1180	334	6239
Total	\$5,734	\$4,180	\$654	\$10,568

Financial Opportunity

The Schlumberger reseller contract represents the potential for ERF Wireless to achieve a \$40M run-rate in recurring annual revenue in just its Oil and Gas Division by 4Q 2011. The contract covers guaranteed market penetration of 50% in newly acquired regions and 67% in existing ERF network coverage areas, implying further significant upside opportunity in the Oil & Gas Division alone.

ERF Wireless is executing its vertical markets growth strategy with great success. The Schlumberger contract alone represents an enormous opportunity for the company, as outlined in the scenario models beginning on page 34. Few numbers and no pricing were released with the contract, but based upon comparable wireless rate structures and existing satellite communication rates, we extrapolate varying price points and provide a sensitivity analysis to differing rates of deployment for the trucks and mobile trailers that constitute the bulk of the committed circuits in the contract.

Between now and 2011, cumulative revenue generation from the Schlumberger contract in the scenarios ranges from \$23.6M at the conservative end to approximately \$60M at the more aggressive end. Clearly these are a significant and meaningful opportunity to ERF Wireless and its owners.

It is very important to note that these scenarios reflect only the opportunity in the Oil & Gas Division with just one partnership (Schlumberger); the scenarios reflect no other revenue generation potential from the build-out of that

network with other oil & gas, commercial, industrial, or residential consumers in the network region, nor do they reflect the many opportunities for growth in any of the other ERF Wireless operating segments.

Further current opportunities for the company – not reflected in the Schlumberger contract scenario modeling – include:

- **The Banking Industry**, where each new customer represents the potential for \$20 million in revenue streams from four contracts over a 10-year period. ERF Wireless has a significant competitive advantage with its patent-pending CryptoVue™ Network Security device developed to comply with stringent auditing standards and Federal Banking Regulations.
- **WISP Operations – Commercial/Industrial.** The Schlumberger contract covers 1,077 circuits, with a commitment of a 67% guaranteed minimum market penetration of all active drilling locations in existing ERF Wireless coverage areas and a 50% guaranteed minimum market penetration in all newly acquired wireless coverage regions. The additional capacity above and beyond the Schlumberger commitment represents an enormous opportunity in and of itself – especially with the apparent guaranteed payback on the deployment of the circuits built into the contract with Schlumberger.
- **Oilfield Activity.** Activity in the oil & gas industry is closely related to the demand, supply, and pricing of these commodities, driving exploration and production activity. While activity was depressed in 2008/early 2009 due to global economic conditions, as the economy recovers and prices have improved, activity in the oil field has increased. Any dramatic pick-up in activity in E&P in the U.S. and Canada could have a materially positive impact on communication needs, resulting in ERF Wireless revenue in the Oil and Gas Division outpacing even our more aggressive of the three scenarios.
- **International Growth Opportunities.** ERF Wireless' oilfield communications solutions are receiving increasing exposure. The partnership with Schlumberger (the leading provider of O&G communications solutions), and the Apache Digital Oilfield White Paper recently published in the leading industry publication *World Oil*, are likely to attract further interest in the company's oil & gas remote location communications solutions. Further, both Schlumberger and Apache have international operations, and will probably present further growth opportunities to the company. ERF Wireless is poised to become the wireless communications provider of choice,

and international oil and gas operations represent a significant opportunity for growth.

- **WISP Operations – Residential.** The company's recurring WISP revenue base is currently approaching \$500,000 per month on its current commercial, industrial and residential customer base of approximately 10,000. ERF Wireless is a very likely candidate to receive funds from the broadband stimulus funding, and in first-round funding has applied for loans/grants of \$24.6M covering an area with a population of approximately 591,346. Our estimates indicate a 1% penetration rate of adoption with residential customers alone would equate to an addition of approximately \$300,000 per month in recurring revenue.

Clearly ERF Wireless is poised for rapid growth. However, it is imperative to note that there is significant opportunity for upside well above and beyond the current revenue opportunities highlighted by scenario modeling of the Schlumberger contract.

Future Outlook

Wireless Broadband is poised to become the “third pipe” as both an alternative to and an extension of DSL and cable modem services: ERF Wireless could not be better positioned to capitalize on this enormous opportunity.

The market for rural wireless broadband products and services has grown dramatically as illustrated in this report. More importantly, rural demand is on the rise, and the U.S. government is incentivizing ongoing deployment of broadband services.

Given the recent strides in wireless technology, the current Administration's focus on rural broadband deployment, and the FCC adoption of an order to restructure frequencies within one of the several bands used for wireless broadband communications, wireless broadband is poised to become the “third pipe” as both an alternative to and an extension of DSL and cable modem services.

In just five years, ERF Wireless has become the dominant provider of wireless Internet and communications services to rural communities, particularly in the Oil & Gas and local Banking industries:

- ERF Wireless has developed and is executing a strategic plan that has created a tremendous financial opportunity

in both the near- and long-term in commercial and residential markets, both through acquisition and internal network development;

- The Schlumberger contract alone represents an opportunity for ERF Wireless to achieve a \$40M run-rate in annual recurring revenue in just its Oil & Gas Division by 4Q 2011;
- ERF Wireless has distinguished itself from the competition by focusing on industry opportunities where there is little to no competition, and partnering with industry leaders such as Schlumberger, Apache and Motorola;
- ERF Wireless has distinguished itself from the competition by providing both superior and proprietary technologies, such as the CryptoVue® Network Security Appliance;
- ERF Wireless is extremely well positioned to capitalize on U.S. incentives in rural broadband deployment, economically and efficiently further building out its network in rural areas and communities.

ERF Wireless, Inc. truly represents Wireless Broadband at its best.

For more information, please contact us at Research@MithraResearch.com or refer to the company's website, www.erfwireless.com

Exhibit 12: Potential Revenue Generation from Schlumberger Contract

Scenario 1: Conservative Deployment & Initial Price Points

Sensitivity Analysis*

Scenario 1 - Conservative		1H09A	FY 2009	1Q10	2Q10	3Q10	4Q10	FY 2010	1Q11	2Q11	3Q11	4Q11	FY 2011
Assmptions													
Retrofit - # Trucks			0	0	0	90	90	180	115	120	150	185	570
Cumulative Retrofit			0	0	0	90	180	180	295	415	565	750	750
# Trucks Deployed		1	6	6	60	75	147	90	105	120	135	450	450
Cumulative (trailing)		1	5	11	53	123	123	208	308	423	553	553	553
# MBTs Deployed		21	16	21	30	30	97	30	30	30	30	120	120
Cumulative (trailing)		18	30	51	78	108	108	138	168	198	228	228	228
Revenue													
Recurring	Rate/Mo												
Truck - Internet Svc	\$2,000	\$6,000	\$18,000	\$54,000	\$198,000	\$588,000	\$858,000	\$1,068,000	\$1,638,000	\$2,298,000	\$3,048,000	\$8,052,000	\$8,052,000
MBT - Internet Svc	\$2,000	116,000	152,000	264,000	408,000	588,000	1,412,000	768,000	948,000	1,128,000	1,308,000	4,152,000	4,152,000
Total Recurring:		\$122,000	\$170,000	\$318,000	\$606,000	\$1,176,000	\$2,270,000	\$1,836,000	\$2,586,000	\$3,426,000	\$4,356,000	\$12,204,000	\$12,204,000
Non-Recurring	Amt/Truck												
Retrofit - Products	\$12,000	0	0	0	1,080,000	1,080,000	2,160,000	1,380,000	1,440,000	1,800,000	2,220,000	6,840,000	6,840,000
Total		\$20,000	\$142,000	\$170,000	\$318,000	\$1,686,000	\$2,256,000	\$4,430,000	\$3,216,000	\$4,026,000	\$5,226,000	\$6,576,000	\$19,044,000
Recurring	Rate/Mo												
Truck - Internet Svc	\$2,000	\$6,000	\$18,000	\$54,000	\$198,000	\$588,000	\$858,000	\$1,068,000	\$1,638,000	\$2,298,000	\$3,048,000	\$8,052,000	\$8,052,000
MBT - Internet Svc	\$3,000	174,000	228,000	396,000	612,000	882,000	2,118,000	1,152,000	1,422,000	1,692,000	1,962,000	6,228,000	6,228,000
Total Recurring:		\$180,000	\$246,000	\$450,000	\$810,000	\$1,470,000	\$2,976,000	\$2,220,000	\$3,060,000	\$3,990,000	\$5,010,000	\$14,280,000	\$14,280,000
Non-Recurring	Amt/Truck												
Retrofit - Products	\$13,500	0	0	0	1,215,000	1,215,000	2,430,000	1,552,500	1,620,000	2,025,000	2,497,500	7,695,000	7,695,000
Total		\$20,000	\$200,000	\$246,000	\$450,000	\$2,025,000	\$2,685,000	\$5,406,000	\$3,772,500	\$4,680,000	\$6,015,000	\$7,507,500	\$21,975,000
Recurring	Rate/Mo												
Truck - Internet Svc	\$2,000	\$6,000	\$18,000	\$54,000	\$198,000	\$588,000	\$858,000	\$1,068,000	\$1,638,000	\$2,298,000	\$3,048,000	\$8,052,000	\$8,052,000
MBT - Internet Svc	\$3,500	203,000	266,000	462,000	714,000	1,029,000	2,471,000	1,344,000	1,659,000	1,974,000	2,289,000	7,266,000	7,266,000
Total Recurring:		\$209,000	\$284,000	\$516,000	\$912,000	\$1,617,000	\$3,329,000	\$2,412,000	\$3,297,000	\$4,272,000	\$5,337,000	\$15,318,000	\$15,318,000
Non-Recurring	Amt/Truck												
Retrofit - Products	\$15,000	0	0	0	1,350,000	1,350,000	2,700,000	1,725,000	1,800,000	2,250,000	2,775,000	8,550,000	8,550,000
Total		\$20,000	\$229,000	\$284,000	\$516,000	\$2,262,000	\$2,967,000	\$6,029,000	\$4,137,000	\$5,097,000	\$6,522,000	\$8,112,000	\$23,868,000
Recurring	Rate/Mo												
Truck - Internet Svc	\$2,000	\$6,000	\$18,000	\$54,000	\$198,000	\$588,000	\$858,000	\$1,068,000	\$1,638,000	\$2,298,000	\$3,048,000	\$8,052,000	\$8,052,000
MBT - Internet Svc	\$4,500	261,000	342,000	594,000	918,000	1,323,000	3,177,000	1,728,000	2,133,000	2,538,000	2,943,000	9,342,000	9,342,000
Total Recurring:		\$267,000	\$360,000	\$648,000	\$1,116,000	\$1,911,000	\$4,035,000	\$2,796,000	\$3,771,000	\$4,836,000	\$5,991,000	\$17,394,000	\$17,394,000
Non-Recurring	Amt/Truck												
Retrofit - Products	\$17,500	0	0	0	1,575,000	1,575,000	3,150,000	2,012,500	2,100,000	2,625,000	3,237,500	9,975,000	9,975,000
Total		\$20,000	\$287,000	\$360,000	\$648,000	\$2,691,000	\$3,486,000	\$7,185,000	\$4,808,500	\$5,871,000	\$7,461,000	\$9,228,500	\$27,369,000

*Please note, cumulative quarterly numbers in the assumptions for the number of trucks and MBTs deployed do not match the number of trucks deployed in any given quarter. This is because we use the conservative assumption that a truck or MBT does not necessarily begin to produce revenue the day it hits the field, thus the cumulative number is offset by one month, using trailing monthly numbers. For example, the cumulative revenue producing trucks and MBTs in the field for 2Q10 are based on the number of trucks deployed in March, April and May of 2010. Thus the number of trucks and MBTs deployed quarterly does not match the number of cumulative revenue-producing vehicles when presented in the quarterly fashion.

Potential Revenue Generation from Schlumberger Contract

Scenario 2: Moderate Deployment Rate & Initial Price Points

Sensitivity Analysis*

Scenario 2: Moderate		FY 2009	1Q10	2Q10	3Q10	4Q10	FY 2010	1Q11	2Q11	3Q11	4Q11	FY 2011
Assumptions												
Retrofit - # Trucks		0	3	40	90	120	253	120	120	120	137	497
Cumulative Retrofit		0	3	43	133	253	253	373	493	613	750	750
# Trucks Deployed		8	9	60	75	90	234	105	120	135	80	440
Cumulative (trailing)		6	14	57	127	212	212	312	427	557	682	682
# MBTs Deployed		20	12	24	45	60	141	75	81	4	0	160
Cumulative (trailing)		16	28	48	86	141	141	211	286	321	321	321
Revenue												
Recurring	Rate/Mo											
Truck - Internet Svc	\$2,500	\$30,000	\$82,500	\$277,500	\$765,000	\$1,365,000	\$2,490,000	\$2,077,500	\$2,902,500	\$3,840,000	\$4,840,000	\$13,660,000
MBT - Internet Svc	\$2,500	110,000	180,000	300,000	532,500	907,500	1,920,000	1,395,000	1,957,500	2,397,500	2,407,500	8,157,500
Total Recurring:		\$140,000	\$262,500	\$577,500	\$1,297,500	\$2,272,500	\$4,410,000	\$3,472,500	\$4,860,000	\$6,237,500	\$7,247,500	\$21,817,500
Non-Recuring	Amt/Truck											
Retrofit - Products	\$12,000	0	36,000	480,000	1,080,000	1,440,000	3,036,000	1,440,000	1,440,000	1,440,000	1,644,000	5,964,000
Total		\$20,000	\$298,500	\$1,057,500	\$2,377,500	\$3,712,500	\$7,446,000	\$4,912,500	\$6,300,000	\$7,677,500	\$8,891,500	\$27,781,500
Recurring	Rate/Mo											
Truck - Internet Svc	\$2,500	\$30,000	\$82,500	\$277,500	\$765,000	\$1,365,000	\$2,490,000	\$2,077,500	\$2,902,500	\$3,840,000	\$4,840,000	\$13,660,000
MBT - Internet Svc	\$3,500	154,000	252,000	420,000	745,500	1,270,500	2,688,000	1,953,000	2,740,500	3,356,500	3,370,500	11,420,500
Total Recurring:		\$184,000	\$334,500	\$697,500	\$1,510,500	\$2,635,500	\$5,178,000	\$4,030,500	\$5,643,000	\$7,196,500	\$8,210,500	\$25,080,500
Non-Recuring	Amt/Truck											
Retrofit - Products	\$13,500	0	40,500	540,000	1,215,000	1,620,000	3,415,500	1,620,000	1,620,000	1,620,000	1,849,500	6,709,500
Total		\$20,000	\$204,000	\$375,000	\$1,237,500	\$2,725,500	\$4,255,500	\$8,593,500	\$5,650,500	\$7,263,000	\$8,816,500	\$10,060,000
Recurring	Rate/Mo											
Truck - Internet Svc	\$2,500	\$30,000	\$82,500	\$277,500	\$765,000	\$1,365,000	\$2,490,000	\$2,077,500	\$2,902,500	\$3,840,000	\$4,840,000	\$13,660,000
MBT - Internet Svc	\$4,000	176,000	288,000	480,000	852,000	1,452,000	3,072,000	2,232,000	3,132,000	3,836,000	3,852,000	13,052,000
Total Recurring:		\$206,000	\$370,500	\$757,500	\$1,617,000	\$2,817,000	\$5,562,000	\$4,309,500	\$6,034,500	\$7,676,000	\$8,692,000	\$26,712,000
Non-Recuring	Amt/Truck											
Retrofit - Products	\$15,000	0	45,000	600,000	1,350,000	1,800,000	3,795,000	1,800,000	1,800,000	1,800,000	2,055,000	7,455,000
Total		\$20,000	\$226,000	\$415,500	\$1,357,500	\$2,967,000	\$4,617,000	\$9,357,000	\$6,109,500	\$7,834,500	\$9,476,000	\$10,747,000
Recurring	Rate/Mo											
Truck - Internet Svc	\$2,500	\$30,000	\$82,500	\$277,500	\$765,000	\$1,365,000	\$2,490,000	\$2,077,500	\$2,902,500	\$3,840,000	\$4,840,000	\$13,660,000
MBT - Internet Svc	\$4,500	198,000	324,000	540,000	958,500	1,633,500	3,456,000	2,511,000	3,523,500	4,315,500	4,333,500	14,683,500
Total Recurring:		\$228,000	\$406,500	\$817,500	\$1,723,500	\$2,998,500	\$5,946,000	\$4,588,500	\$6,426,000	\$8,155,500	\$9,173,500	\$28,343,500
Non-Recuring	Amt/Truck											
Retrofit - Products	\$17,500	0	52,500	700,000	1,575,000	2,100,000	4,427,500	2,100,000	2,100,000	2,100,000	2,397,500	8,697,500
Total		\$20,000	\$248,000	\$459,000	\$1,517,500	\$3,298,500	\$5,098,500	\$10,373,500	\$6,688,500	\$8,526,000	\$10,255,500	\$11,571,000

*Please note, cumulative quarterly numbers in the assumptions for the number of trucks and MBTs deployed do not match the number of trucks deployed in any given quarter. This is because we use the conservative assumption that a truck or MBT does not necessarily begin to produce revenue the day it hits the field, thus the cumulative number is offset by one month, using trailing monthly numbers. For example, the cumulative revenue producing trucks and MBTs in the field for 2Q10 are based on the number of trucks deployed in March, April and May of 2010. Thus the number of trucks and MBTs deployed quarterly does not match the number of cumulative revenue-producing vehicles when presented in the quarterly fashion.

Potential Revenue Generation from Schlumberger Contract

Scenario 3: Aggressive Deployment

Sensitivity Analysis*

Scenario 3: Aggressive		1H09A	FY 2009	1Q10	2Q10	3Q10	4Q10	FY 2010	1Q11	2Q11	3Q11	4Q11	FY 2011
Assumptions													
Retrofit - # Trucks			2	30	45	70	120	265	120	120	120	123	483
Cumulative Retrofit			2	32	77	147	267	267	387	507	627	750	750
# Trucks Deployed			11	15	90	120	120	345	120	120	154	0	394
Cumulative (trailing)			8	21	86	196	316	316	436	556	696	750	750
# MBTs Deployed			41	45	60	60	60	225	55	0	0	0	55
Cumulative (trailing)			26	71	126	186	246	246	306	321	321	321	321
Revenue													
Recurring	Rate/Mo												
Truck - Internet Svc	\$2,500		\$37,500	\$120,000	\$420,000	\$1,170,000	\$2,070,000	\$3,780,000	\$2,970,000	\$3,870,000	\$4,845,000	\$5,625,000	\$17,310,000
MBT - Internet Svc	\$2,500		145,000	420,000	795,000	1,245,000	1,695,000	4,155,000	2,145,000	2,407,500	2,407,500	2,407,500	9,367,500
Total Recurring:			\$182,500	\$540,000	\$1,215,000	\$2,415,000	\$3,765,000	\$7,935,000	\$5,115,000	\$6,277,500	\$7,252,500	\$8,032,500	\$26,677,500
Non-Recurring	Amt/Truck												
Retrofit - Products	\$12,000		24,000	360,000	540,000	840,000	1,440,000	3,180,000	1,440,000	1,440,000	1,440,000	1,476,000	5,796,000
Total		\$20,000	\$226,500	\$900,000	\$1,755,000	\$3,255,000	\$5,205,000	\$11,115,000	\$6,555,000	\$7,717,500	\$8,692,500	\$9,508,500	\$32,473,500
Recurring	Rate/Mo												
Truck - Internet Svc	\$2,500		\$37,500	\$120,000	\$420,000	\$1,170,000	\$2,070,000	\$3,780,000	\$2,970,000	\$3,870,000	\$4,845,000	\$5,625,000	\$17,310,000
MBT - Internet Svc	\$3,500		203,000	588,000	1,113,000	1,743,000	2,373,000	5,817,000	3,003,000	3,370,500	3,370,500	3,370,500	13,114,500
Total Recurring:			\$240,500	\$708,000	\$1,533,000	\$2,913,000	\$4,443,000	\$9,597,000	\$5,973,000	\$7,240,500	\$8,215,500	\$8,995,500	\$30,424,500
Non-Recurring	Amt/Truck												
Retrofit - Products	\$13,500		27,000	405,000	607,500	945,000	1,620,000	3,577,500	1,620,000	1,620,000	1,620,000	1,660,500	6,520,500
Total		\$20,000	\$287,500	\$1,113,000	\$2,140,500	\$3,858,000	\$6,063,000	\$13,174,500	\$7,593,000	\$8,860,500	\$9,835,500	\$10,656,000	\$36,945,000
Recurring	Rate/Mo												
Truck - Internet Svc	\$2,500		\$37,500	\$120,000	\$420,000	\$1,170,000	\$2,070,000	\$3,780,000	\$2,970,000	\$3,870,000	\$4,845,000	\$5,625,000	\$17,310,000
MBT - Internet Svc	\$4,000		232,000	672,000	1,272,000	1,992,000	2,712,000	6,648,000	3,432,000	3,852,000	3,852,000	3,852,000	14,988,000
Total Recurring:			\$269,500	\$792,000	\$1,692,000	\$3,162,000	\$4,782,000	\$10,428,000	\$6,402,000	\$7,722,000	\$8,697,000	\$9,477,000	\$32,298,000
Non-Recurring	Amt/Truck												
Retrofit - Products	\$15,000		30,000	450,000	675,000	1,050,000	1,800,000	3,975,000	1,800,000	1,800,000	1,800,000	1,845,000	7,245,000
Total		\$20,000	\$319,500	\$1,242,000	\$2,367,000	\$4,212,000	\$6,582,000	\$14,403,000	\$8,202,000	\$9,522,000	\$10,497,000	\$11,322,000	\$39,543,000
Recurring	Rate/Mo												
Truck - Internet Svc	\$2,500		\$37,500	\$120,000	\$420,000	\$1,170,000	\$2,070,000	\$3,780,000	\$2,970,000	\$3,870,000	\$4,845,000	\$5,625,000	\$17,310,000
MBT - Internet Svc	\$4,500		261,000	756,000	1,431,000	2,241,000	3,051,000	7,479,000	3,861,000	4,333,500	4,333,500	4,333,500	16,861,500
Total Recurring:			\$298,500	\$876,000	\$1,851,000	\$3,411,000	\$5,121,000	\$11,259,000	\$6,831,000	\$8,203,500	\$9,178,500	\$9,958,500	\$34,171,500
Non-Recurring	Amt/Truck												
Retrofit - Products	\$17,500		35,000	525,000	787,500	1,225,000	2,100,000	4,637,500	2,100,000	2,100,000	2,100,000	2,152,500	8,452,500
Total		\$20,000	\$353,500	\$1,401,000	\$2,638,500	\$4,636,000	\$7,221,000	\$15,896,500	\$8,931,000	\$10,303,500	\$11,278,500	\$12,111,000	\$42,624,000

*Please note, cumulative quarterly numbers in the assumptions for the number of trucks and MBTs deployed do not match the number of trucks deployed in any given quarter. This is because we use the conservative assumption that a truck or MBT does not necessarily begin to produce revenue the day it hits the field, thus the cumulative number is offset by one month, using trailing monthly numbers. For example, the cumulative revenue producing trucks and MBTs in the field for 2Q10 are based on the number of trucks deployed in March, April and May of 2010. Thus the number of trucks and MBTs deployed quarterly does not match the number of cumulative revenue-producing vehicles when presented in the quarterly fashion.

Appendix A

Deployment of Cellular Technology⁴³

“3G” refers to the third generation of mobile telephony (cellular) technology. The first generation (1G) began in the early 80's with commercial deployment of Advanced Mobile Phone Service (AMPS) cellular networks. Early AMPS networks used Frequency Division Multiplexing Access (FDMA) to carry analog voice over channels in the 800 MHz frequency band.

2G emerged in the 90's when mobile operators deployed two competing digital voice standards. In North America, some operators adopted IS-95, which used Code Division Multiple Access (CDMA) to multiplex up to 64 calls per channel in the 800 MHz band. Across the world, many operators adopted the Global System for Mobile communication (GSM) standard, which used Time Division Multiple Access (TDMA) to multiplex up to 8 calls per channel in the 900 and 1800 MHz bands.

The International Telecommunications Union (ITU) defined the third generation (3G) of mobile telephony standards – IMT-2000 – to facilitate growth, increase bandwidth, and support more diverse applications. For example, GSM could deliver not only voice, but also circuit-switched data at speeds up to 14.4 Kbps. But to support mobile multimedia applications, 3G had to deliver packet-switched data with better spectral efficiency, at far greater speeds.

However, to get from 2G to 3G, mobile operators had to make "evolutionary" upgrades to existing networks while simultaneously planning their "revolutionary" new mobile broadband networks. This led to the establishment of two distinct 3G families: 3GPP and 3GPP2.

The 3rd Generation Partnership Project (3GPP) was formed in 1998 to foster deployment of 3G networks that descended from GSM. 3GPP technologies evolved as follows.

- General Packet Radio Service (GPRS) offered speeds up to 114 Kbps.
- Enhanced Data Rates for Global Evolution (EDGE) reached up to 384 Kbps.
- UMTS Wideband CDMA (WCDMA) offered downlink speeds up to 1.92 Mbps.
- High Speed Downlink Packet Access (HSDPA) boosted the downlink to 14Mbps.
- LTE Evolved UMTS Terrestrial Radio Access (E-UTRA) is aiming for 100 Mbps.

GPRS deployments began in 2000, followed by EDGE in 2003. While these technologies are defined by IMT-2000, they are sometimes called "2.5G" because they did not offer multi-megabit data rates. EDGE has now been superseded by HSDPA (and its uplink partner HSUPA). According to the 3GPP, there were 166 HSDPA networks in 75 countries at the end of 2007. The next step for GSM operators: LTE E-UTRA, based on specifications completed in late 2008.

A second organization – the 3rd Generation Partnership Project 2 (3GPP2) -- was formed to help North American and Asian operators using CDMA2000 transition to 3G. 3GPP2 technologies evolved as follows.

- One Times Radio Transmission Technology (1xRTT) offered speeds up to 144 Kbps.
- Evolution – Data Optimized (EV-DO) increased downlink speeds up to 2.4 Mbps.
- EV-DO Rev. A boosted downlink peak speed to 3.1 Mbps and reduced latency.
- EV-DO Rev. B can use 2 to 15 channels, with each downlink peaking at 4.9 Mbps.
- Ultra Mobile Broadband (UMB) was slated to reach 288 Mbps on the downlink.

1xRTT became available in 2002, followed by commercial EV-DO Rev. 0 in 2004. Here also, 1xRTT is referred to as "2.5G" because it served as a transitional step to EV-DO. EV-DO standards were extended twice – Revision A services emerged in 2006 and are now being succeeded by products that use Revision B to increase data rates by transmitting over multiple channels. The 3GPP2's next-generation technology, UMB, may not catch on, as many CDMA operators are now planning to evolve to LTE instead.

In fact, LTE and UMB are often called 4G (fourth generation) technologies because they increase downlink speeds by an order of magnitude. This label is a bit premature because what constitutes "4G" has not yet been standardized. The ITU is currently considering candidate technologies for inclusion in the 4G IMT-Advanced standard, including LTE, UMB, and WiMAX II. Goals for 4G include data rates of at least 100 Mbps, use of OFDMA transmission, and packet-switched delivery of IP-based voice, data, and streaming multimedia.

Appendix B: Platform Bandwidth

Modem/Broadband					Wide Area Networks			
Device		Download Speed	Upload Speed	Inception	Device		Download Speed	Upload Speed
14.4 modem	14.4	14.4 kbps	14.4 kbps	1991	G. Lite (aka ADSL Lite)	1536	1.5 mbps	512 kbps
28.8 modem	28.8	28.8 kbps	28.8 kbps	1994	T1 (& ISDN Primary Rate Interface)	1544	1.5 mbps	1.5 mbps
V.92 modem (dial-up)	56	56 kbps	48.0 kbps	1999	E1 (& ISDN Primary Rate Interface)	2048	2.0 mbps	2.0 mbps
ISDN	128	64/128 kbps	64/128 kbps	1986	G.SHDSL	2304	2.3 mbps	2.3 mbps
ISDSL	144	144 kbps	144 kbps	2000	LR-VDSL2	4000	4.0 mbps	4 mbps
HDSL	1544	1.5 mbps	1.5 mbps	1998	SDSL	2320	2.3 mbps	2.3 mbps
SDSL	2320	2.3 mbps	2.3 mbps	1998	T2	6312	6.3 mbps	6.3 mbps
ADSL (typical)	3000	3.0 mbps	768 kbps	1998	ADSL	8000	8.0 mbps	1.0 mbps
SHDSL	5690	5.7 mbps	5.7 mbps	2001	E2	8448	8.4 mbps	8.4 mbps
ADSL		8.2 mbps	1.0 mbps		ADSL2	12000	12.0 mbps	3.5 mbps
ADSL (G.DMT)	12288	12.3 mbps	1.3 mbps	1999	Satellite Internet	16000	16.0 mbps	1.0 mbps
ADSL2	12288	12.3 mbps	3.6 mbps	2002	ADSL2+	12000	12.0 mbps	3.5 mbps
ADSL2+	24576	24.6 mbps	3.6 mbps	2003	E3	34368	34.4 mbps	34.4 mbps
DOCSIS v1.0 (Cable Modem)	38000	38 mbps	9 mbps	1997	DOCSIS v1.0 (Cable Modem)	38000	38.0 mbps	10.0 mbps
DOCSIS v2.0 (Cable Modem)	38000	38 mbps	27 mbps	2001	DOCSIS v2.0 (Cable Modem)	40000	40.0 mbps	30.0 mbps
FiOS (fiber optic)	50000	50 mbps	20 mbps		DS3/T3	44736	44.7 mbps	44.7 mbps
DOCSIS v3.0 (Cable Modem)	160000	160 mbps	120 mbps	2006	STS-1/EC-1/OC-1/STM-0	51840	51.8 mbps	51.8 mbps
Uni-DSL	200000	200 mbps	200 mbps		VDSL	100000	100 mbps	100 mbps
VDSL ITU G.993.1	200000	200 mbps	200 mbps	2001	DOCSIS v3.0 (Cable Modem)	160000	160 mbps	120 mbps
VDSL ITU G.993.2	250000	250 mbps	250 mbps	2005	VDSL2	250000	250 mbps	250 mbps
BPON (G.983) fiber optic	622000	622 mbps	155 mbps	2005	T4	274176	274.2 mbps	274.2 mbps
GPON (G.984) fiber optic	2488000	2,488 mbps	1,244 mbps	2008	10 Gigabit Ethernet WAN PHY	9953000	9,953 mbps	9,953 mbps

Mobile Telephone Interfaces			
Device		Download Speed	Upload Speed
GSM	14400	14.4 kbps	14.4 kbps
HSCSD	57600	57.6 kbps	14.4 kbps
GPRS	57600	57.6 kbps	28.8 kbps
CDMA2000	153000	153 kbps	153 kbps
EDGE (type 1 MS)	236800	236.8 kbps	236.8 kbps
UMTS	384000	384 kbps	384 kbps
EDGE (type 2 MS)	473600	473.6 kbps	473.6 kbps
EDGE Evolution (type 1 MS)	1184000	1.2 mbps	474 kbps
EDGE Evolution (type 2 MS)	1894000	1.9 mbps	947 kbps
1xEV-DO Rev. 0	2457000	2.5 mbps	153 kbps
1xEV-DO Rev. A	3100000	3.1 mbps	1.8 mbps
3xEV-DO Rev B	9300000	9.3 mbps	5.4 kbps
HSDPA/HSUPA	14400000	14.4 mbps	5.8 mbps
4xEV-DO Enhancements	34400000	34.4 mbps	12.4 mbps
HSPA+	42000000	42.0 mbps	11.5 mbps
15xEV-DO Rev. B	73500000	73.5 mbps	27.0 mbps
UMB (2X2 MIMO)	140000000	140 mbps	34.0 mbps
LTE	173000000	173 mbps	58.0 mbps
UMB (4X4 MIMO)	280000000	280 mbps	68.0 mbps
EV-DO Rev. C	280000000	280 mbps	75.0 mbps
LTE (4X4 MIMO)	326000000	326 mbps	86.0 mbps

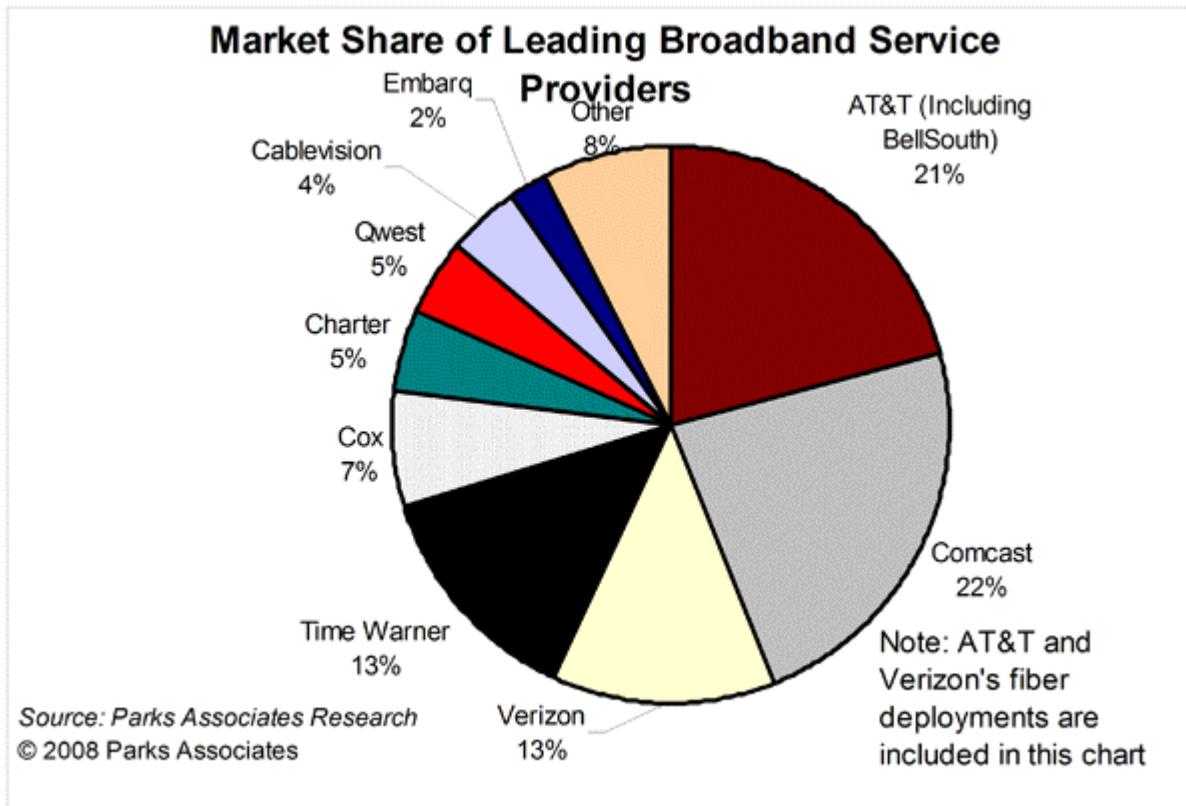
Wireless Networks			
Device		Download Speed	Upload Speed
802.11 (legacy)	2000	2.0 mbps	2.0 mbps
RONJA free space optical wireless	10000	10.0 mbps	10.0 mbps
802.11b	11000	11.0 mbps	11.0 mbps
802.11b+ (non-IEEE standard)	44000	44.0 mbps	44.0 mbps
802.11a	54000	54.0 mbps	54.0 mbps
802.11g	54000	54.0 mbps	54.0 mbps
802.16 (WiMAX)	70000	70.0 mbps	70.0 mbps
802.11g with Super G (Atheros ext)	108000	108.0 mbps	108.0 mbps
802.11g with 125HSM (Broadcom ext)	125000	125.0 mbps	125.0 mbps
802.11g with Nitro (Conexant ext)	140000	140.0 mbps	140.0 mbps
802.11n	600000	600.0 mbps	600.0 mbps

Appendix C: Major Unlicensed Wireless Standards

TECHNOLOGY	RANGE	CAPACITY	SPECTRUM	REPRESENTATIVE COMPANIES	COMMENTS
802.11b (WiFi)	300 feet	11 Mbps	2.4 GHz	Chipsets: Intersil, Agere, Cisco, Intel Equipment: Cisco, Proxim, Netgear, Vivato, Apple Services: Boingo, Cometa	Primary wireless LAN market today
802.11a (WiFi)	150+ feet	54 Mbps	5 GHz	Major 802.11b vendors plus Atheros, Bernai	Useful for corporate networks, backhaul, and media applications
802.11g (WiFi)	300 feet	54 Mbps	2.4 GHz	Major 802.11b vendors plus Broadcom	Backward-compatible with 802.11b devices
802.15.1 (Bluetooth)	300 feet	1 Mbps	2.4 GHz	Ericsson, Nokia, Intel, Toshiba, Microsoft, 3Com, Motorola	Originally designed for cable replacement; market niche unclear
802.15.3a (WiMedia)	30 feet at 110 Mbps or 12 feet at 200 Mbps	110 and 200 Mbps	Wideband (3.1–10 GHz)	XtremeSpectrum, Motorola, TI, TimeDomain, Philips	High-bitrate personal area networking for media devices
802.15.4 (Zigbee)	200 feet	250 kbps	900 MHz, 2.4 GHz, or wide-band	Philips, Honeywell, Mitsubishi, Motorola.	Low-bitrate personal area networking for sensors
802.16 (WiMax)	30 miles	70 Mbps	10-66 GHz for 802.16; 2-10 GHz for 802.16a	Motorola, Alvarion Proxim, Fujitsu, Aperto	Broadband metropolitan-area network connections
802.20 (MobileFi)	15 km	1 Mbps	3.5 GHz	Cisco, Flarion, HP, Nextel Mobile wireless	Ethernet, currently envisioned for licensed spectrum, but may evolve

Source: *Radio Revolution: The Coming of Age of Unlicensed Wireless*⁴⁴

Appendix D: U.S. Market Share of Leading Broadband Service Providers



Appendix E: Historic Financial Statements

Income Statement & Cash Flow

	Fiscal Year 2006					Fiscal Year 2007					Fiscal Year 2008					1Q09	2Q09
	1Q06	2Q06	3Q06	4Q06	FY06	1Q07	2Q07	3Q07	4Q07	FY07	1Q08	2Q08	3Q08	4Q08	FY08		
Income Statement																	
Sales																	
Products	662	260	42	120	1,084	63	933	661	459	2,116	437	3	40	292	772	138	17
Services	187	121	146	132	586	434	1,506	451	864	3,255	1,219	995	1,101	1,048	4,363	1,166	1,261
Other	13	6	7	20	46	8	(15)	124	81	198	19	7	0	(6)	20	19	0
Total Sales	\$862	\$387	\$195	\$272	\$1,716	\$505	\$2,424	\$1,236	\$1,404	\$5,569	\$1,675	\$1,005	\$1,141	\$1,334	\$5,155	\$1,323	\$1,278
Cost of Goods:																	
Products/Integration Svcs	542	212	37	202	993	166	1,279	291	1,364	3,100	360	156	436	559	1,511	368	287
Rent, Repairs & Maint	15	18	25	9	67	42	51	46	75	214	91	105	103	92	391	96	110
Salary & related		49	25	17	91	41	129	230	(106)	294	49	7	18	4	78	17	0
Depreciation	5	6	8	35	54	19	45	56	155	275	196	211	239	254	900	265	296
Other	12	28	15	4	59	15	17	271	(53)	250	139	105	(62)	59	241	58	8
Total COGS	\$574	\$313	\$110	\$267	\$1,264	\$283	\$1,521	\$894	\$1,435	\$4,133	\$835	\$584	\$734	\$968	\$3,121	\$804	\$701
Gross Profit	\$288	\$74	\$85	\$5	\$452	\$222	\$903	\$342	(\$31)	\$1,436	\$840	\$421	\$407	\$366	\$2,034	\$519	\$577
Operating Expenses																	
SG&A	1,548	1,454	1,242	1,258	5,502	1,283	1,587	1,594	2,360	6,824	2,102	2,125	2,116	2,434	8,777	2,238	2,100
D&A	61	63	63	67	254	67	67	68	183	385	231	237	208	200	876	353	370
Total Operating Expenses	\$1,609	\$1,517	\$1,305	\$1,325	\$5,756	\$1,350	\$1,654	\$1,662	\$2,543	\$7,209	\$2,333	\$2,362	\$2,324	\$2,634	\$9,653	\$2,591	\$2,470
Income (Loss) from Operations	(\$1,321)	(\$1,443)	(\$1,220)	(\$1,320)	(\$5,304)	(\$1,128)	(\$751)	(\$1,320)	(\$2,574)	(\$5,773)	(\$1,493)	(\$1,941)	(\$1,917)	(\$2,268)	(\$7,619)	(\$2,072)	(\$1,893)
Other Income (Expense)																	
Interest expense, net	(137)	(166)	(193)	(237)	(733)	(245)	(418)	(242)	22	(883)	(178)	(170)	(262)	(277)	(887)	(252)	(288)
Gain (loss) on sale of assets/other	0	0	(97)	(27)	(124)	(10)	1	7	(1)	(3)	0	2	27	9	38	0	2
Derivative income (exp)	743	129	(101)	158	929	14	(131)	(213)	(78)	(408)	130	149	8	19	306	(36)	80
Total Other Income (Expense)	\$606	(\$37)	(\$391)	(\$106)	\$72	(\$241)	(\$548)	(\$448)	(\$57)	(\$1,294)	(\$48)	(\$19)	(\$227)	(\$249)	(\$543)	(\$288)	(\$206)
Net Income (Loss)	(\$715)	(\$1,480)	(\$1,611)	(\$1,426)	(\$5,232)	(\$1,369)	(\$1,299)	(\$1,768)	(\$2,631)	(\$7,067)	(\$1,541)	(\$1,960)	(\$2,144)	(\$2,517)	(\$8,162)	(\$2,360)	(\$2,099)
Pfd Dividend	130	0	0	0	130												
Net to Common	(\$845)	(\$1,480)	(\$1,611)	(\$1,426)	(\$5,362)												
FD Earnings (Loss) Per Share	(\$0.08)	(\$0.13)	(\$0.10)	(\$0.10)	(\$0.37)	(\$0.05)	(\$0.04)	(\$0.04)	(\$0.06)	(\$0.17)	(\$0.02)	(\$0.03)	(\$0.03)	(\$0.03)	(\$0.10)	(\$0.02)	(\$0.02)
FD Shares Outstanding	10,563	11,385	16,110	14,492	14,492	27,380	32,475	44,200	41,571	41,571	77,050	65,333	71,467	81,620	81,620	118,000	104,950

Division Summary

	Fiscal Year 2006					Fiscal Year 2007					Fiscal Year 2008					1Q09	2Q09
	1Q06	2Q06	3Q06	4Q06	FY06	1Q07	2Q07	3Q07	4Q07	FY07	1Q08	2Q08	3Q08	4Q08	FY08		
Division Sales																	
Wireless Messaging Svcs (WMS)	266	96	106	102	570	73	1,765	512	83	2,433	496	72	65	109	742	60	31
Wireless Bundled Svcs (WBS)	25	23	24	60	132	347	330	354	842	1,873	1,081	903	961	948	3,893	1,096	1,151
Oil & Gas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Enterprise Network Svcs (ENS)	571	268	66	109	1,014	85	329	370	479	1,263	98	30	213	179	520	157	86
Total Sales	\$862	\$387	\$196	\$271	\$1,716	\$505	\$2,424	\$1,236	\$1,404	\$5,569	\$1,675	\$1,005	\$1,239	\$1,236	\$5,155	\$1,323	\$1,278
% Division Sales																	
Wireless Messaging Svcs (WMS)	30.9%	24.8%	54.1%	37.6%	33.2%	14.5%	72.8%	41.4%	5.9%	43.7%	29.6%	7.2%	5.2%	8.8%	14.4%	4.5%	2.4%
Wireless Bundled Svcs (WBS)	2.9%	5.9%	12.2%	22.1%	7.7%	68.7%	13.6%	28.6%	60.0%	33.6%	64.5%	89.9%	77.6%	76.7%	75.5%	82.8%	90.1%
Oil & Gas	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	0.8%
Enterprise Network Svcs (ENS)	66.2%	69.3%	33.7%	40.2%	59.1%	16.8%	13.6%	29.9%	34.1%	22.7%	5.9%	3.0%	17.2%	14.5%	10.1%	11.9%	6.7%
Total	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%	100.0%
Division Income (Loss)																	
Wireless Messaging Svcs (WMS)	(178)	(255)	(154)	(81)	(668)	(105)	464	(38)	(396)	(75)	237	(47)	(102)	(253)	(165)	(15)	(55)
Wireless Bundled Svcs (WBS)	(42)	(102)	(48)	(108)	(300)	27	(78)	(202)	(476)	(729)	(370)	(559)	(517)	(585)	(2,031)	(675)	(704)
Oil & Gas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(14)	6
Enterprise Network Svcs (ENS)	(289)	(357)	(360)	(372)	(1,378)	(309)	(233)	(281)	(545)	(1,368)	(461)	(375)	(844)	88	(1,592)	(213)	(166)
Total Division Income (Loss)	(\$509)	(\$714)	(\$562)	(\$561)	(\$2,346)	(\$387)	\$153	(\$521)	(\$1,417)	(\$2,172)	(\$594)	(\$981)	(\$1,463)	(\$750)	(\$3,788)	(\$917)	(\$919)
% Division Loss (Income)																	
Wireless Messaging Svcs (WMS)	35.0%	35.7%	27.4%	14.4%	28.5%	27.1%	303.3%	7.3%	27.9%	3.5%	-39.9%	4.8%	7.0%	33.7%	4.4%	1.6%	6.0%
Wireless Bundled Svcs (WBS)	8.3%	14.3%	8.5%	19.3%	12.8%	-7.0%	-51.0%	38.8%	33.6%	33.6%	62.3%	57.0%	35.3%	78.0%	53.6%	73.6%	76.6%
Oil & Gas	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.5%	-0.7%
Enterprise Network Svcs (ENS)	56.8%	50.0%	64.1%	66.3%	58.7%	79.8%	-152.3%	53.9%	38.5%	63.0%	77.6%	38.2%	57.7%	-11.7%	42.0%	23.2%	18.1%
Total	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%	100.0%

Sales & Margin Overview

	Fiscal Year 2006					Fiscal Year 2007					Fiscal Year 2008					1Q09	2Q09	
	1Q06	2Q06	3Q06	4Q06	FY06	1Q07	2Q07	3Q07	4Q07	FY07	1Q08	2Q08	3Q08	4Q08	FY08			
% of Sales:																		
Products	76.8%	67.2%	21.5%	44.1%	63.2%	12.5%	38.5%	53.5%	32.7%	38.0%	26.1%	0.3%	3.5%	21.9%	15.0%	10.4%	1.3%	
Services	21.7%	31.3%	74.9%	48.5%	34.1%	85.9%	62.1%	36.5%	61.5%	58.4%	72.8%	99.0%	96.5%	78.6%	84.6%	88.1%	98.7%	
Other	1.5%	1.6%	3.6%	7.4%	2.7%	1.6%	-0.6%	10.0%	5.8%	3.6%	1.1%	0.7%	0.0%	-0.4%	0.4%	1.4%	0.0%	
Total Sales	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%	100.0%	
% Cost of Goods:																		
Products/Integration Svcs	94.4%	67.7%	33.6%	75.7%	78.6%	58.7%	84.1%	32.6%	95.1%	75.0%	43.1%	26.7%	59.4%	57.7%	48.4%	45.8%	40.9%	
Rent, Repairs & Maint	2.6%	5.8%	22.7%	3.4%	5.3%	14.8%	3.4%	5.1%	5.2%	5.2%	10.9%	18.0%	14.0%	9.5%	12.5%	11.9%	15.7%	
Salary & related	0.0%	15.7%	22.7%	6.4%	7.2%	14.5%	8.5%	25.7%	-7.4%	7.1%	5.9%	1.2%	2.5%	0.4%	2.5%	2.1%	0.0%	
Depreciation	0.9%	1.9%	7.3%	13.1%	4.3%	6.7%	3.0%	6.3%	10.8%	6.7%	23.5%	36.1%	32.6%	26.2%	28.8%	33.0%	42.2%	
Other	2.1%	8.9%	13.6%	1.5%	4.7%	5.3%	1.1%	30.3%	-3.7%	6.0%	16.6%	18.0%	-8.4%	6.1%	7.7%	7.2%	1.1%	
Total COGS	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%	100.0%	
% of Operating Expenses																		
SG&A	96.2%	95.8%	95.2%	94.9%	95.6%	95.0%	95.9%	95.9%	92.8%	94.7%	90.1%	90.0%	91.0%	92.4%	90.9%	86.4%	85.0%	
D&A	3.8%	4.2%	4.8%	5.1%	4.4%	5.0%	4.1%	4.1%	7.2%	5.3%	9.9%	10.0%	9.0%	7.6%	9.1%	13.6%	15.0%	
Total Operating Expenses	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%	100.0%	
Margins																		
Cost of Goods Sold	66.6%	80.9%	56.4%	98.2%	73.7%	56.0%	62.7%	72.3%	102.2%	74.2%	49.9%	58.1%	64.3%	72.6%	60.5%	60.8%	54.9%	
Gross Profit Margin	33.4%	19.1%	43.6%	1.8%	26.3%	44.0%	37.3%	27.7%	-2.2%	25.8%	50.1%	41.9%	35.7%	27.4%	39.5%	39.2%	45.1%	
SG&A	179.6%	375.7%	636.9%	462.5%	320.6%	254.1%	65.5%	129.0%	168.1%	122.5%	125.5%	211.4%	185.5%	182.5%	170.3%	169.2%	164.3%	
D&A	7.1%	16.3%	32.3%	24.6%	14.8%	13.3%	2.8%	5.5%	13.0%	6.9%	13.8%	23.6%	18.2%	15.0%	17.0%	26.7%	29.0%	
Operating Expenses	186.7%	392.0%	669.2%	487.1%	335.4%	267.3%	68.2%	134.5%	181.1%	129.4%	139.3%	235.0%	203.7%	197.5%	187.3%	195.8%	193.3%	
Operating Margin	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	

Balance Sheet

	Fiscal Year 2006					Fiscal Year 2007					Fiscal Year 2008					1Q09	2Q09	
	1Q06	2Q06	3Q06	4Q06	FY06	1Q07	2Q07	3Q07	4Q07	FY07	1Q08	2Q08	3Q08	4Q08	FY08			
Balance Sheet Data																		
Assets																		
Cash & Equivalents	\$1,153	\$32	\$43	\$393	\$393	\$56	\$372	\$938	\$2,211	\$2,211	\$1,058	\$90	\$195	\$348	\$348	\$656	\$180	
A/R, net	252	77	41	387	387	167	441	372	365	365	517	575	532	248	248	345	283	
A/R other	0	0	0	0	0	0	14	0	114	114	144	108	136	52	52	62	127	
Inventories	85	95	128	132	132	136	145	101	118	118	155	230	220	193	193	201	241	
Costs & profits in excess of billing	173	90	42	69	69	14	21	100	410	410	579	143	176	427	427	558	160	
Prepaid expenses & other	330	180	157	137	137	373	451	395	523	523	486	430	389	494	494	461	361	
Total Current Assets	\$1,993	\$474	\$411	\$1,118	\$1,118	\$746	\$1,444	\$1,906	\$3,741	\$3,741	\$2,939	\$1,576	\$1,648	\$1,762	\$1,762	\$2,283	\$1,352	
Property & Equipment, net	456	457	460	802	802	792	933	1,235	2,682	2,682	3,436	3,687	4,042	6,102	6,102	5,853	5,953	
Goodwill	0	0	0	0	0	0	0	0	260	260	436	436	436	436	436	436	1,255	
Intangible Assets, net	394	351	309	299	299	254	209	164	1,541	1,541	1,557	1,368	1,207	1,059	1,059	912	1,040	
Other Assets	3	8	5	5	5	5	11	27	142	142	171	198	232	264	264	252	250	
Total Assets	\$2,846	\$1,290	\$1,185	\$2,224	\$2,224	\$1,797	\$2,597	\$3,332	\$8,366	\$8,366	\$8,539	\$7,265	\$7,565	\$9,623	\$9,623	\$9,736	\$9,850	
Liabilities & Shareholders' Equity																		
Notes Payable & Current LT Debt	\$2,007	\$1,704	\$2,388	\$519	\$519	\$562	\$754	\$296	\$513	\$513	\$493	\$475	\$481	\$702	\$702	\$1,138	\$1,560	
Cap Lease & Current Portion	0	0	0	0	0	16	84	403	403	403	524	607	733	861	861	892	908	
A/P	615	368	391	506	506	486	376	462	1,089	1,089	1,230	700	818	981	981	853	689	
Accrued Expenses	221	203	215	281	281	420	961	662	929	929	736	916	1,042	1,269	1,269	1,806	1,551	
Derivative Liabilities	400	353	460	313	313	309	406	352	403	403	250	101	96	78	78	193	196	
Deferred Liability & Revenue	9	9	10	195	195	189	549	306	180	180	172	170	177	237	237	491	526	
Total Current Liabilities	\$3,252	\$2,637	\$3,464	\$1,814	\$1,814	\$1,966	\$3,062	\$2,162	\$3,517	\$3,517	\$3,405	\$2,969	\$3,347	\$4,128	\$4,128	\$5,373	\$5,430	
LT Debt, net	140	292	104	2,280	2,280	2,557	2,600	2,414	2,885	2,885	2,932	3,470	4,884	2,844	2,844	3,047	3,707	
LT Cap Leases, net	0	0	0	0	0	0	40	407	1,009	1,009	1,356	1,365	1,469	1,581	1,581	1,408	1,187	
Deferred Liability & Revenue, net	21	20	26	664	664	622	578	529	486	486	449	409	358	316	316	274	231	
Total Liabilities	\$3,413	\$2,949	\$3,594	\$4,758	\$4,758	\$5,145	\$6,280	\$5,512	\$7,897	\$7,897	\$8,142	\$8,213	\$10,058	\$8,869	\$8,869	\$10,102	\$10,555	
Preferred Stock	4	4	4	4	4	4	4	3	3	3	3	3	2	4	4	4	4	
Common Stock	(571)	(1,663)	(2,413)	(2,538)	(2,538)	(3,352)	(3,687)	(2,183)	466	466	394	(951)	(2,495)	750	750	(370)	(709)	
Total Shareholders' Equity	(\$567)	(\$1,659)	(\$2,409)	(\$2,534)	(\$2,534)	(\$3,348)	(\$3,683)	(\$2,180)	\$469	\$469	\$397	(\$948)	(\$2,493)	\$754	\$754	(\$366)	(\$705)	
Total Liabilities & SE	\$2,846	\$1,290	\$1,185	\$2,224	\$2,224	\$1,797	\$2,597	\$3,332	\$8,366	\$8,366	\$8,539	\$7,265	\$7,565	\$9,623	\$9,623	\$9,736	\$9,850	

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Risks

Risks in an investment in ERF Wireless, Inc. include but are not limited to: the Internet services industry is extremely competitive. The company competes for revenues with many companies providing Internet services both nationally and locally. Many of the company's competitors have access to greater resources and are better capitalized. ERF Wireless utilizes the unlicensed spectrum, which is subject to intense competition and low barriers of entry. The markets in which the company participates are highly regulated and changes in the regulatory environment could materially adversely affect the company's operating results or financial condition. The company has a limited operating history with significant losses and expects losses to continue for the foreseeable future. ERF Wireless has a limited cash and liquidity position and will likely need to raise additional capital to fund operations, potentially diluting existing shareholder equity. The company's business plan is dependent upon acquiring existing companies to expand its business, augment market coverage and other opportunities, and there is no assurance that the company will be able to identify the best acquisitions or negotiate acceptable terms to complete such acquisitions. A system failure could delay or interrupt the company's ability to provide products or services, and could increase its costs and reduce its revenues. The industry in which the company participates changes rapidly due to evolving technology standards and its future success will depend on its ability to continue to meet the sophisticated needs of its customers, and, if required, the company may not be able to successfully upgrade its existing network infrastructure. Further, a prolonged economic recession or depression will have an adverse effect on our operating results. For a more complete list of factors that may adversely affect future operations or an investment in ERF Wireless, Inc., please refer to the company's filings, available at www.erfwireless.com or www.sec.gov.

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Strong Buy	The stock is expected to appreciate 35% or more within a 12 – 18 month time frame
Buy	The stock is expected to appreciate 10% to 35% within a 12 – 18 month time frame.
Speculative Buy	The stock is a particularly high-risk investment; this rating is used primarily for early stage companies with products or properties in/under development.
Sell	The stock is expected to under-perform its industry or peer group by 10% - 20% within a 12-18 month time frame.
Short Sell	The stock is expected to depreciate by 20% or more within a 12 – 18 month time frame, or where fundamentals of a company have deteriorated significantly or are expected to deteriorate significantly and the stock is expected to materially depreciate as a result thereof.
Hold	The stock does not have enough upside or downside potential to rate a Strong Buy, Buy, Sell or Short Sell. The stock is either fairly valued or has too much uncertainty to be assigned another rating.

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