



# Wireless Operators US 2000

## Consulting Report

**Executive Summary:** This report provides a survey of North American Wireless Network Operators, with a focus on operators in the United States. The U.S. wireless voice and wireless data markets are highly fragmented due to adopted of multiple competing wireless air interface standards and data transmission technologies. In addition, no one operator has succeeded yet in delivering true coast-to-coast services across all states and territories. Operators have been content to cover major metropolitan centers with their associated high density market population. This has resulted in difficulty roaming nationwide. This report lays the foundation for selecting service providers through which to deploy wireless medical, educational, entertainment and business applications by providing the critical information required for making the selection.

**Purpose:** This report provides a survey of North American Wireless Network Operators to determine which are suitable for wireless delivery of medical, educational and business information and associated application functionality. It is one of a family of reports on wireless technology that include:

- Wireless Devices
- Wireless Application Protocols
- Wireless Application Service Providers
- Wireless Application Development Tools
- Recommendations for Developers of Wireless Applications

Taken together these reports provide an overview of the set of technologies required to deliver wireless data and application services and products. The final recommendations report provides guidance on the selection of the appropriate technologies and makes a limited number of recommendations for specific solutions.

**Problem:** Companies that wish to develop and deploy wireless data services or wireless applications face the challenges of delivering useful application functionality and business information through a device appropriate for mobile use over a wireless network that supports the device and associated application protocols. The current wireless data networking market is highly fragmented due to adopted of multiple competing wireless air interface standards and data transmission technologies. In addition, no one operator has succeeded yet in delivering true coast-to-coast services across all states and territories. Operators have been content to cover major metropolitan centers with their associated high density market population. This has resulted in difficulty roaming nationwide. This means that development of wireless applications and data services requires careful selection of:

- a specific model of device on which to deploy the application;
- which supports a specific application protocol;
- supported by a specific set of wireless service providers;
- who offer a specific set of development tools

REPORT

WEB ENABLE

**Discussion:** There are a wide variety of national, regional and even international operators that could potentially be used to deploy mobile or wireless applications. They range from small local operators that support a single city to multinational Global 2000 corporations that deliver wireless network services around the globe.

There are a few critical technical features that must be considered when selecting a wireless network operator through which to deploy wireless data services or wireless applications.

Coverage Area – What states and/or cities does the operator support?

Reseller for – Wireless Internet Service Providers (WISPs) often do not implement the physical wireless network, but rather resell network services from one of the national Wireless Network Operators.

Subsidiaries – Significant consolidation has occurred in the wireless markets over the past year. Many operators have either been acquired by or merged with another. The acquired companies often continue to operate as separately branded subsidiaries. It can be valuable in business negotiations to know the relationships between seemingly separate companies.

Affiliate of – In addition to M&A activity, many operators have formed affiliations with each other in an attempt to deliver coast-to-coast services.

Protocols Supported – How does the service provider communicate with the end-user's wireless device.

Devices Offered – What devices are sold or explicitly supported by the cellular phone companies, paging companies or wireless data company.

Devices Supported – What devices are supported by the protocol used by the cellular phone companies, paging companies or wireless data company.

Subscription Plan – The cost of wireless subscription can determine whether the application is accepted by the target market. However useful the application, if the monthly or annual subscription cost is deemed to be too expensive, adoption of the application or service will be slow and may ultimately be rejected by the market. We have documented only standard monthly subscription rates as of October 2000. While operators often have special promotional rates and/or annual rates, we have focused on monthly rates to ease initial price comparisons. Since major applications or service providers will be likely to negotiate a business relationship at a wholesale level, these rates are for rough comparison.

**Approach:** For this report we have focused on major wireless network operators within the United States. These operators have the potential of providing coast-to-coast service over the coming years as they acquire or merge with smaller regional operators. We have documented many of the regional carriers in a separate section, but have not attempted to collect complete information on these smaller operators. We have provided information on the first few of a new type of "operator" – the Wireless Internet Service Provider (WISP). WISPs resell network connectivity from larger operators while providing value-added wireless data services.

## WIRELESS INTERNET SERVICE PROVIDERS

### GoAmerica.com

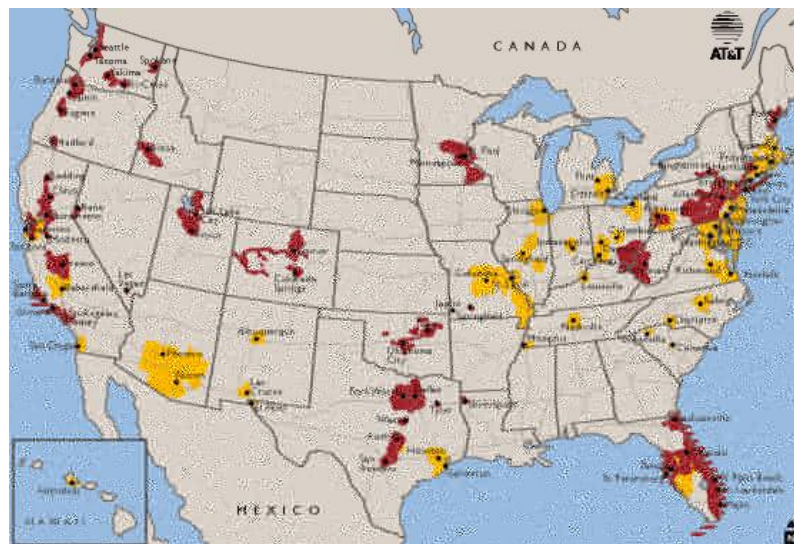
**Coverage Area:** Nationwide

**Reseller for:** BellSouth (Mobitex), Metricom Ricochet, Motient Wireless and Motient Satellite Networks

**Protocols Supported:** CDPD, Mobitex, ReFLEX, Satelite, Ricochet

**Devices Supported:** Palm (w/appropriate add-on), Handspring (w/appropriate Springboard module), TRG Pro, Novatel modems, Sierra modems

**Subscription Plans:** Go.Lite: 9.95/month for first 25KB, additional traffic charged at 10¢ per kilobyte for CDPD network and 30¢ per kilobyte for BellSouth network; Go.Unlimited: \$59.95/month unlimited traffic. Both plans charge an additional 10¢ per kilobyte for traffic generate by non-GoAmerica software products. Go.Ricochet: \$74.95/month unlimited usage.



GoAmerica CDPD US Coverage (AT&T Wireless)



GoAmerica Mobitex US Coverage (BellSouth)

## Omnisky

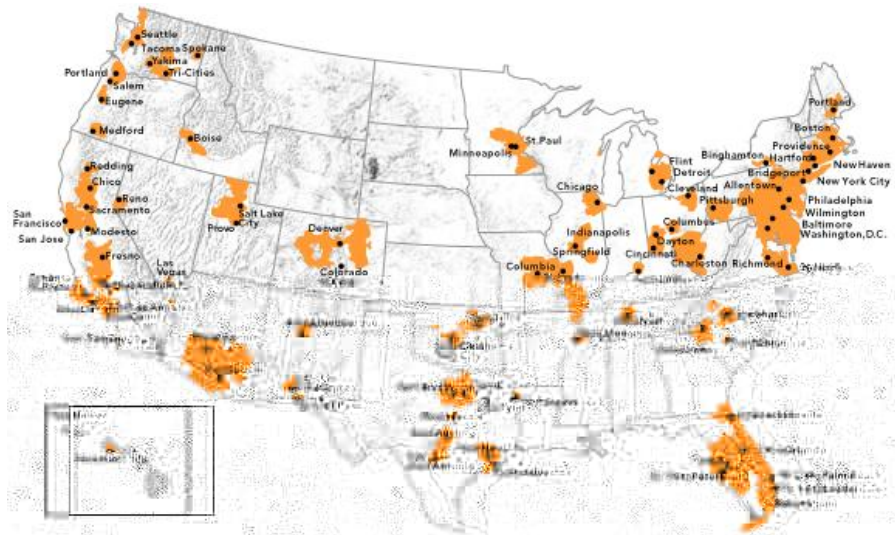
**Coverage Area:** Nationwide

**Reseller for:** AT&T Wireless CDPD

**Protocols Supported:** CDPD

**Devices Supported:** Palm (w/appropriate add-on), Handspring (w/appropriate Springboard module), TRG Pro, Novatel modems, Sierra modems

**Subscription Plans:** \$39.95/month unlimited usage



## Palm.net

**Coverage Area:** Nationwide

**Reseller for:** BellSouth Wireless

**Protocols Supported:** Mobitex (Planned: CDPD, GPRS)

**Devices Supported:** Palm (w/appropriate add-on), Handspring (w/appropriate Springboard module), TRG Pro, Novatel modems, Sierra modems

**Subscription Plans:**

1. Basic: 9.99/month for first 50KB, additional traffic charged at 20¢ per kilobyte
2. Expanded: 24.99/month for first 150KB, additional traffic charged at 20¢ per kilobyte
3. Volume: 39.99/month for first 300KB, additional traffic charged at 20¢ per kilobyte
4. Unlimited: 44.99/month unlimited traffic





## Yadayada.com

**Coverage Area:** Nationwide

**Reseller for:** Verizon

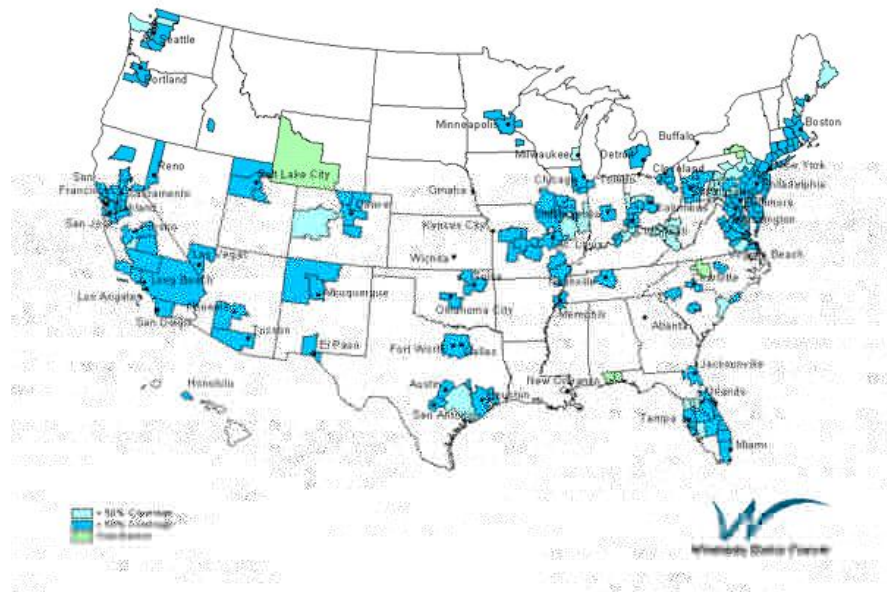
**Protocols Supported:** CDPD

**Devices Supported:** Palm (w/appropriate add-on), Handspring (w/appropriate Springboard module), TRG Pro, Novatel modems, Sierra modems (for Palm-based devices only)

**Subscription Plans:** \$39.95 unlimited wireless Internet

**Notes:** Messaging Portal and Web Clipping WASP for Palm OS Devices includes WISP CDPD services. Yadayada expects to have final network coverage maps available by year end. They are using Verizon as a carrier and through Verizon's carrier agreements should have access to the full US CDPD network.

### UNITED STATES CDPD COVERAGE



## MAJOR US WIRELESS NETWORK SERVICE PROVIDERS

### AT&T Wireless

**Coverage Area:** Major US Cities including: **Ariz.:** Phoenix, Tucson; **D.C.:** Washington; **Ga.:** Atlanta; **Ill.:** Chicago; **Mass.:** Boston; **Md.:** Baltimore; **Mich.:** Detroit; **Mo.:** St. Louis; **N.C.:** Charlotte; **Ohio:** Akron, Canton, Cleveland, Columbus; **Pa.:** Philadelphia

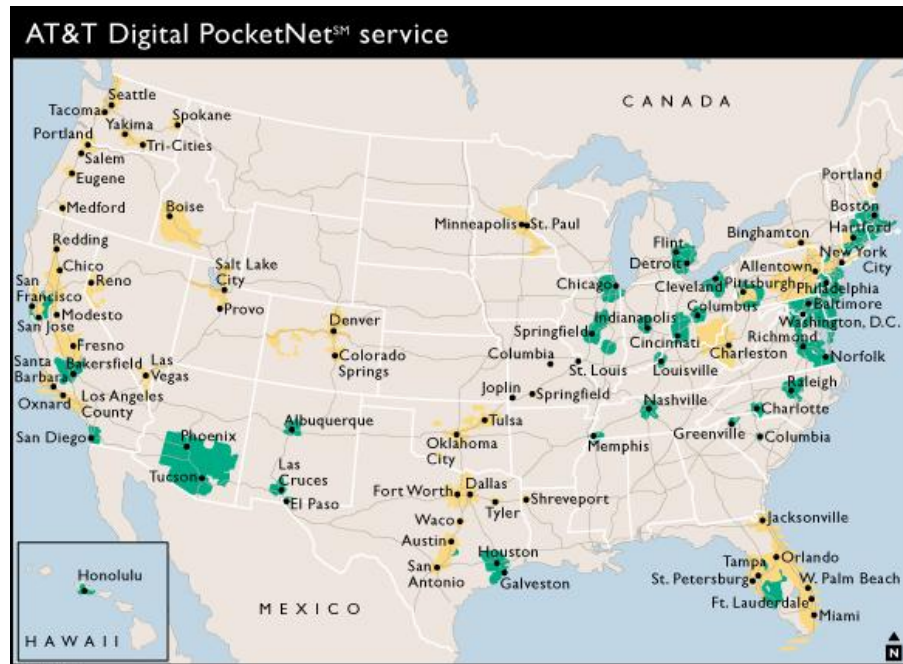
**Subsidiaries:** NA but many affiliates

**Protocols Supported:** TDMA, CDPD

**Devices Offered:** Ericsson R280LX, Mitsubishi T250

**Devices Supported:** Ericsson, Mitsubishi, Motorola, Nokia, Palm (w/appropriate add-on), Handspring (w/appropriate Springboard module), TRG Pro, Novatel modems, Sierra modems

**Subscription Plans:** Basic: Free w/Select Voice Plans includes unlimited wireless Internet access; Plus: \$6.99 includes Basic services plus e-mail, Word and Text attachments; Premium: \$14.99 includes Premium services plus Calendar, ToDo and Contact management.



### BellSouth Wireless

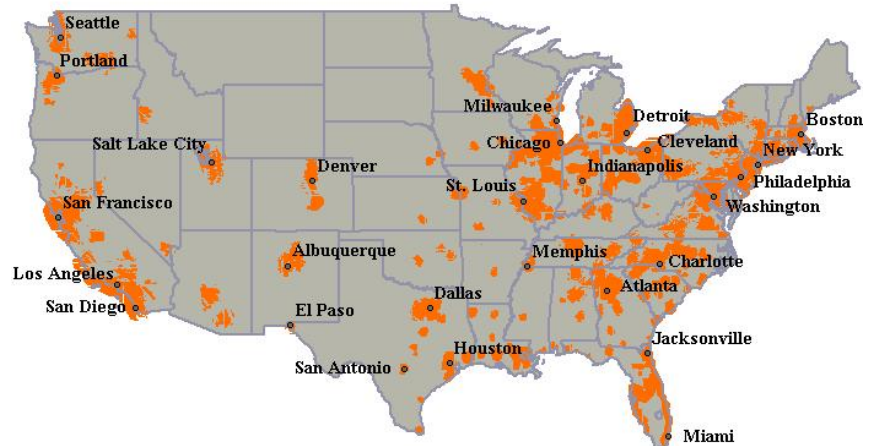
**Coverage Area:** Alabama, Arkansas, Florida, Georgia, Indiana, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, Virginia

**Subsidiaries:** Mobility (TDMA), Mobility DCS (GSM), CellularOne (TDMA?), Cingular (Mobitex)

**Protocols Supported:** CDPD, GPSR, TDMA, GSM

**Devices Supported:** Ericsson, Mitsubishi, Motorola, Nokia, Palm (w/appropriate add-on), Handspring (w/appropriate Springboard module), TRG Pro, Novatel modems, Sierra modems

**Subscription Plans:** Billed as "Data Minutes" against Digital PCS phone subscription plan



**BellSouth US Mobitex Coverage**

**Nextel**

**Coverage Area:** Nationwide

**Subsidiaries:** NA

**Protocols Supported:** iDEN

**Devices Supported:** Motorola i500plus, i550plus, i700plus, i1000plus, i2000

**Subscription Plans:** Online (basic): Free w/Voice Plans includes unlimited use of MSN Mobile, Shopping and Nextel Services and 300 text pages; Online Plus: \$5.00/month includes basic features plus Web Browsing; Online Two-Way Messaging: \$10.00/month includes Send, receive and reply to text messages (up to 500 characters); eDispatch: \$40.00/month.



**Nextel US Coverage**

**PageNet**

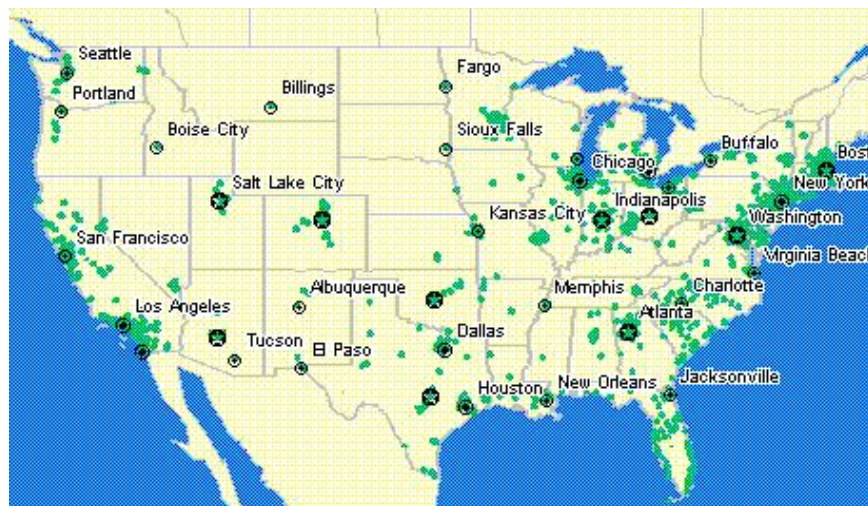
**Coverage Area:** Nationwide

**Protocols Supported:** ReFLEX



**Devices Supported:** Motorola Timeport P935, P930, Pagewriter 2000X

**Subscription Plans:** \$27.95/month pager messaging only



**Pagenet US Coverage**

### **Qwest**

**Coverage Area:** **Ariz.:** Phoenix, Tucson; **Colo.:** Avon, Boulder, Breckenridge, Colorado ski areas, Colorado Springs, Denver, Fort Collins, Frisco, Georgetown, Greeley, Idaho Springs, Silverthorne; **Idaho:** Boise; **Minn.:** Minneapolis-St. Paul, Rochester, St. Cloud; **Montana;** **Ore.:** Portland, Salem; **Utah;** **Wash.:** Spokane, Vancouver

**Subsidiaries:** Qwest, USWest Wireless

**Protocols Supported:** CDPD, CDMA

**Devices Supported:** Ericsson, Kyocera, Mitsubishi, Motorola, Neopoint, Nokia, Qualcomm, Samsung, Sony

**Subscription Plans:** BrowseNow: \$14.95/month; BrowseNow and Qwest.net: \$29.90/month; MessagePak: \$4.95/month; Information Services: \$3.00/month for 3 topics, \$5.00/month for 6 topics.



**Qwest US Coverage**



## Ricochet

**Coverage Area:** Atlanta, Baltimore, Dallas/Ft Worth, Houston, Philadelphia, Phoenix, San Diego, San Francisco Bay Area, New York City (Manhattan), Washington DC (28.8 Kbps), Seattle (28.8 Kbps). Planned: Boston, Detroit, Chicago, St Louis, Minneapolis, Kansas City, Denver, Salt Lake City, Los Angeles

**Protocols Supported:** IP over proprietary datalink via External Modem

**Devices Supported:** Windows CE/ME/2000/NT, Apple Macintosh

**Resellers:** GoAmerica, Juno Express, Wireless WebConnect,

**Subscription Plans:** \$74.99 – \$79.95/month

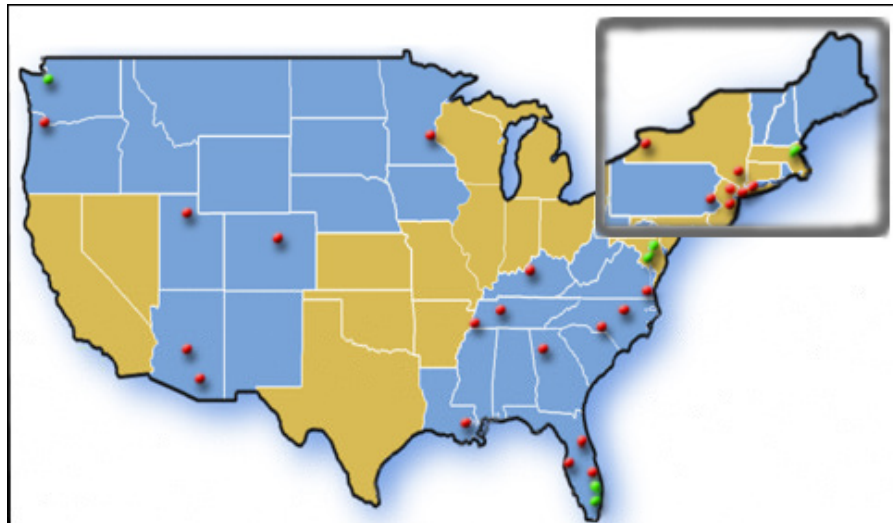
## SBC Wireless

**Coverage Area:** Arizona, Arkansas, California, Colorado, Connecticut, Florida, Georgia, Illinois, Indiana, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Nevada, New Hampshire, New Jersey, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Puerto Rico, Rhode Island, Tennessee, Texas, Utah, Virginia, Washington DC, Washington, Wisconsin

**Subsidiaries:** Ameritech, Southwestern Bell, Pacific Bell (GSM), Nevada Bell, SNET, CellularOne/Cingular, SBC Telecom, Sterling Commerce, Prodigy Communications

**Protocols Supported:** CDPD, GPSR, CDMA, GSM

**Devices Supported:** Ericsson, Kyocera, Mitsubishi, Motorola, Neopoint, Nokia, Qualcomm, Samsung, Sony, Palm (w/appropriate add-on), Handspring (w/appropriate Springboard module), TRG Pro



SBC Wireless US Coverage

## Skytel

**Coverage Area:** Nationwide

**Protocols Supported:** ReFLEX

**Devices Supported:** Palm (w/appropriate add-on), Handspring (w/appropriate Springboard module), RIM Blackberry, Motorola Pagers, Glenayre Pagers

**Subscription Plans:** SkyWriter Plan: \$24.95/month includes 10,000 characters, billed in 10-character increments per message, 10¢ per 10-character block for additional messages; Skywriter Value Pack: \$34.95/month includes 14,000 characters, billed in 10-character increments per message, 10¢ per 10-character block for additional messages,

plus Personal Access Number and 120 minutes of voicemail per month; SkyTel 5 Plan: \$29.95 includes 500 messages of 100 characters each, additional messages 5¢ per 100 character message.

### Skytel US Coverage

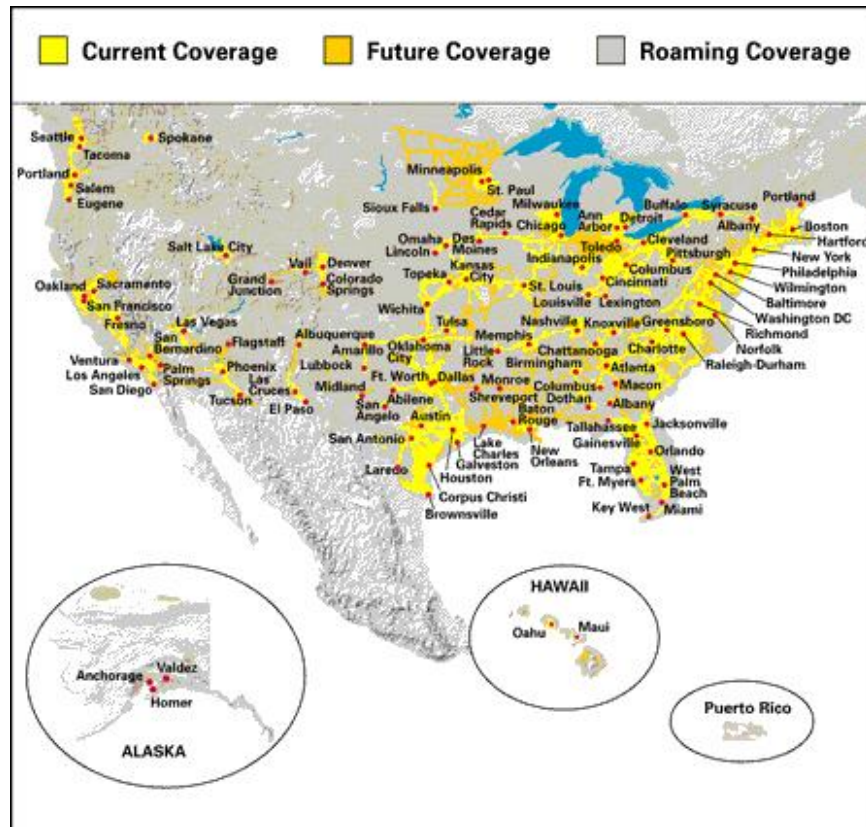
#### **Sprint PCS**

**Coverage Area:** Nationwide – all 50 states plus District of Columbia and Puerto Rico, including: **Ala.:** Birmingham; **Ariz.:** Phoenix, Tucson; **Ark.:** Fort Smith, Little Rock; **Calif.:** Anaheim, Fresno, Huntington Beach, Irvine, Los Angeles, Orange County, Riverside counties, Sacramento, San Bernadino, San Diego, San Francisco, Santa Ana, Ventura; **Colo.:** Denver, Boulder; **Conn.** (metropolitan areas); **Fla.:** Fort Lauderdale, Key West, Miami, West Palm Beach; **Ga.:** Atlanta, Columbus; **Idaho:** Coeur d'Alene; **Ill.:** Chicago; **Ind.:** Indianapolis; **Iowa:** Ames, Cedar Rapids, Des Moines, Iowa City; **Kan.:** Wichita; **Ky.:** Louisville; **La.:** New Orleans; **Maine** (metropolitan areas); **Mass.** (metropolitan areas); **Mich.:** Detroit, Flint; **Minn.:** Minneapolis/St. Paul; **Mo.:** Kansas City, St. Louis; **N.C.:** Charlotte, Greensboro, Raleigh; **Neb.:** Lincoln, Omaha; **N.Y.:** Albany, Buffalo, Newark, New York City, Rochester, Syracuse; **N.H.** (metropolitan areas); **Nev:** Las Vegas; **Ohio:** Cincinnati, Cleveland, Columbus, Toledo; **Okla.:** Oklahoma City, Stillwater, Tulsa; **Ore.:** Portland, Eugene; **Pa.:** Pittsburgh, Philadelphia; **R.I.** (metropolitan areas); **Tenn.:** Chattanooga, Knoxville, Nashville; **Texas:** Alamosa, Austin, Brownsville, Corpus Christi, Dallas, Fort Worth, Harlingen, Houston, Laredo, McAllen, San Antonio, Wichita Falls; **Utah:** Salt Lake City; **Wash.:** Seattle, Spokane, Vancouver; **Wis.:** Madison, Milwaukee

**Protocols Supported:** CDPD, CDMA

**Devices Supported:** Ericsson, Kyocera, Mitsubishi, Motorola, Neopoint, Nokia, Qualcomm, Samsung, Sony

**Subscription Plans:** Sprint PCS Wireless Web is a \$10/month add-on to an existing service of \$29.99/month or more. The Wireless Web service allows the user to use calling plan minutes for both voice call and data calls. Each additional minute of Wireless Web connectivity beyond the calling plan minutes costs 24¢/minute.



Sprint PCS US Coverage

### Verizon Wireless

**Coverage Area:** California, Colorado, Connecticut, Delaware, Florida, Georgia, Indiana, Kentucky, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Vermont, Virginia, Washington DC [Ala.: Mobile; Fla.: Fort Lauderdale, Jacksonville, Miami, Orlando, Tampa; Hawaii: Honolulu, Maui; Ill.: Chicago; La.: New Orleans; Texas: Austin, Dallas/Fort Worth, Houston, San Antonio; Va.: Norfolk, Richmond; Wis.: Milwaukee]

**Subsidiaries:** Airtouch, Primeco, BellAtlantic, GTE

**Protocols Supported:** CDPD, CDMA

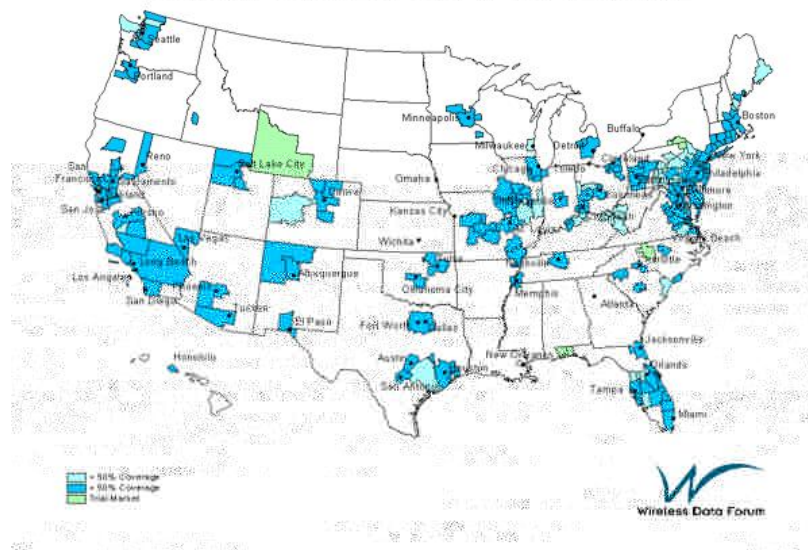
**Devices Supported:** Ericsson, Kyocera, Mitsubishi, Motorola, Neopoint, Nokia, Qualcomm, Samsung, Sony, Palm (w/appropriate add-on), Handspring (w/appropriate Springboard module), TRG Pro

**Devices Offered:** Qualcomm 860, Novatel Wireless Minstrel (PalmPilot) and Minstrel III (Palm III) modems, Novatel Wireless Merlin PCMCIA card modem, Sierra Wireless Aircard 300 for laptops, Nextcell Spider PCMCIA card, Mitsubishi MobileAccess smartphone

**Subscription Plans:** Web Access Internet Plus Plan: \$39.95/month unlimited usage within Verizon wireless network, 8¢/KB roaming (assumes 2 year contract, 1 yr contract costs 54.95/month); Web Access eMail Plus Plan: 24.95/month unlimited messages; Web Access Internet Plus Palm-Only Plan: \$24.95/month unlimited usage within Verizon network, 8¢/KB roaming; Palm-Only Traveler Plan: \$34.95/month unlimited usage within Verizon network, 6¢/KB roaming

**Notes:** Palm-only plans can only be used by devices running Palm OS using Novatel CDPD wireless modems. Special business alliances possible for specific vertical market applications. Verizon coverage maps are only available for specific Eastern regions.

## UNITED STATES CDPD COVERAGE



Verizon CDPD US Coverage

### VoiceStream Wireless

**Coverage Area:** **Ariz.:** Phoenix, Tucson; **D.C.:** Washington; **Colo.:** Denver, Fort Collins, Greeley; **Conn.:** major population areas and connecting highways; **D.C.:** Washington; **Fla.:** Miami-Fort Lauderdale-West Palm Beach; Orlando, Tampa; **Hawaii:** Honolulu; **Idaho:** Boise; **Iowa:** Des Moines; **Kan.:** Wichita; **Mass.:** Boston; **Md.:** Baltimore; **Mich.:** Great Lakes Region including Detroit, Flint, Lansing; **Minn.:** Duluth, Hibbing, Minneapolis/St. Paul, Virginia; **Mo.:** Kansas City; **N.H.:** Manchester; **N.J.:** Atlantic City; **N.M.:** Albuquerque, Las Cruces; **N.Y.:** Albany, New York, Schenectady, Syracuse, Troy; **Ohio:** Columbus; **Okla.:** Oklahoma City; Tulsa; **Ore.:** Portland; **Pa.:** Lehigh Valley, Philadelphia, Pittsburgh; Scranton/Wilkes-Barre; **R.I.:** Providence; **Texas:** Austin, El Paso, Houston; San Antonio; **Utah:** Salt Lake City; **Wash.:** Seattle, Spokane, Vancouver; **Wis.:** Superior.

**Subsidiaries:** Ariel, Microcel (22.6%), Omnipoint, Powertel (VoiceStream acquisition by Deutsche Telekom pending)

**Protocols Supported:** GPSR, GSM

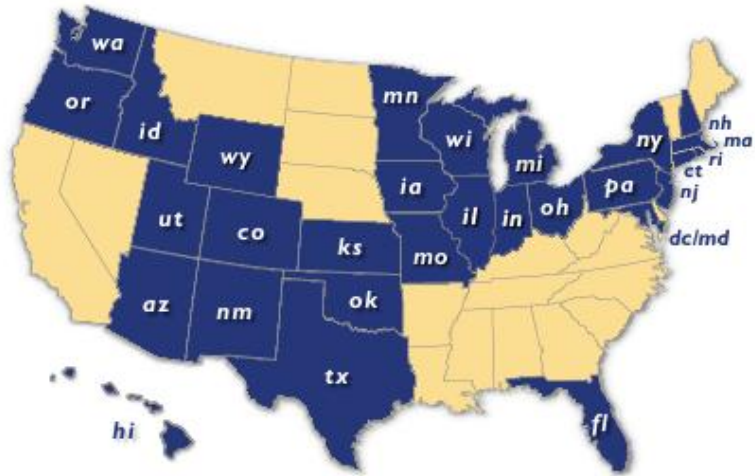
**Devices Offered:** Nokia 6190, 8290, 8890, Motorola G310, G150, Ericsson I888

**Devices Supported:** Ericsson, Motorola, Nokia, Palm (w/appropriate add-on), Handspring (w/appropriate Springboard module), TRG Pro

**Subscription Plans:** DataStream optional service at \$29.99 includes 1500 data minutes. Otherwise, Internet connection billed as "call minutes" against connection subscription plan. E-notes at \$4.99/month includes same number of messages free as minutes free in connection rate plan. Regional connection rate plan example (Northeast):

1. \$19.99/75 minutes/30¢ per minute coverage;
2. \$39.99/600 minutes/25¢ per minute coverage;
3. \$59.99/900 minutes/20¢ per minute coverage;





VoiceStream US Coverage

**Weblink**

**Coverage Area:** Nationwide

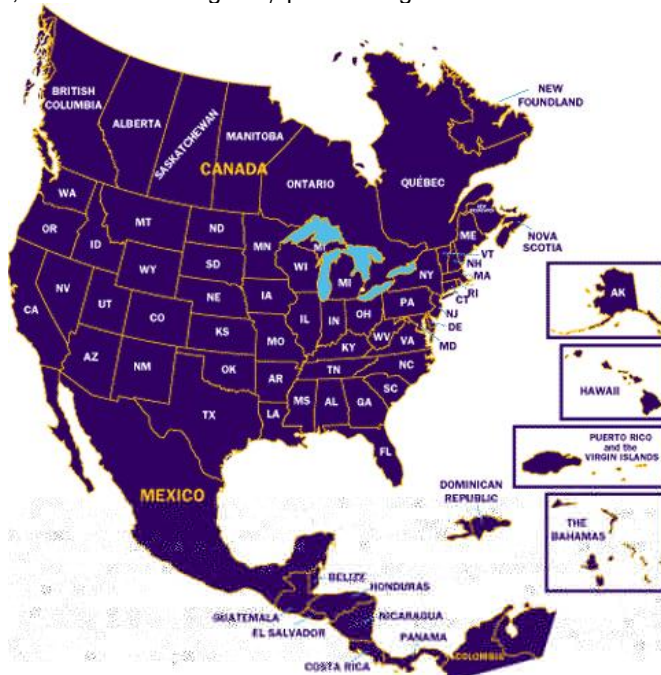
**Protocols Supported:** ReFLEX

**Devices Offered:** Motorola Talkabout T900, Pagewriter 2000X, Glenayre AccessLink

**Devices Supported:** Palm (w/appropriate add-on), Handspring (w/appropriate Springboard module), RIM Blackberry, Motorola Pagers, Glenayre Pagers

**Subscription Plans:**

1. Basic: \$9.95/month for first 125 message @ 100 characters each, Additional messages 8¢ per message
2. Unwired Lite: \$14.95/month for first 250 message @ 100 characters each, Additional messages 6¢ per message
3. Unwired Supreme: \$19.95/month for first 400 message @ 100 characters each, Additional messages 5¢ per message
4. Unwired Extreme: \$29.95/month for first 1000 message @ 100 characters each, Additional messages 5¢ per message



## REGIONAL US WIRELESS NETWORK SERVICE PROVIDERS

### **3 Rivers Wireless**

**Coverage Area:** Mont.: Helena, Great Falls  
**Protocols Supported:** CDMA

### **Aerial Communications Inc.**

**Coverage Area:**  
**Affiliate of:** Merged with VoiceStream Wireless  
**Protocols Supported:** GSM

### **Airadigm Communications Inc.**

**Coverage Area:** Wis.: Appleton-Fox Cities, Fond du Lac, Green Bay, Madison, Manitowoc, Oshkosh, Sheboygan  
**Protocols Supported:** GSM  
**Note:** In Chapter 11 reorganization

### **AirGate PCS**

**Coverage Area:** Ga.: Augusta, Savannah; N.C.: Goldsboro, Greenville, Hickory, Kingston, New Bern, Rocky Mount, Wilson, Outer Banks region; S.C.: Anderson, Charleston, Columbia, Florence, Greenville-Spartanburg, Jacksonville, Orangeville, Roanoke Rapids, Spartanburg, Sumter  
**Affiliate of:** Sprint PCS  
**Protocols Supported:** CDMA

### **Alltel**

**Coverage Area:** Fla.: Jacksonville  
**Protocols Supported:** CDMA

### **Amica Wireless Phone Service**

**Coverage Area:** Ill.: Bloomington, Champaign, Decatur, Springfield  
**Protocols Supported:** CDMA

### **Bell Mobility**

**Coverage Area:** Ontario: Ottawa, Toronto; Quebec: Montreal, Quebec City  
**Protocols Supported:** CDMA

### **BellSouth Cellular**

**Coverage Area:** Fla.: Tampa Bay  
**Affiliate of:** Subsidiary of BellSouth  
**Protocols Supported:** TDMA

### **BellSouth Mobility DCS**

**Coverage Area:** Fla.: Northwest Florida; Ga.: Augusta, Savannah; N.C.: Asheville, Burlington, Chapel Hill, Charlotte, Durham, Fayetteville, Hickory, High Point, Gastonia, Greensboro, Raleigh, Wilmington, Winston-Salem; S.C.: Anderson, Charleston, Columbia, Florence, Greenville, Myrtle Beach, Spartanburg; Tenn.: Bristol, Johnson City, Kingsport, Knoxville

**Affiliate of:** Subsidiary of BellSouth

**Protocols Supported:** GSM

### **Blackfoot Communications**

**Coverage Area:** Mont.: Billings; Wash.: Spokane

**Protocols Supported:** CDMA

### **Cellular South**

**Coverage Area:** Miss.: Jackson

**Protocols Supported:** TDMA

### **Leap Wireless International (Cricket Communications)**

**Coverage Area:** Tenn.: Chattanooga, Nashville

**Protocols Supported:** CDMA

### **Cincinnati Bell Wireless**

**Coverage Area:** Ky.: northern; Ohio: Cincinnati, Dayton

**Protocols Supported:** TDMA

### **Cleartel**

**Coverage Area:** Alberta: Calgary, Edmonton; British Columbia: Vancouver, Victoria; Nova Scotia: Halifax; Ontario: Ottawa, Toronto; Quebec: Hull, Montreal, Quebec City

**Protocols Supported:** CDMA

### **Comtel PCS Mainstreet Limited Partnership**

**Coverage Area:** Unknown

**Protocols Supported:** GSM

### **Conestoga Wireless Co.**

**Coverage Area:** Unknown

**Protocols Supported:** GSM

### **Cook Inlet Western Wireless PV/SS PCS LP**

**Coverage Area:** Unknown

**Affiliate of:** VoiceStream Wireless

**Protocols Supported:** GSM

### **Cross Telephone Company**

**Coverage Area:** Unknown  
**Protocols Supported:** GSM

### **DigiPH PCS**

**Coverage Area:** Ala.: Mobile; Miss.: Biloxi, Hattiesburg  
**Protocols Supported:** GSM

### **Epic Touch Co.**

**Coverage Area:** Unknown  
**Protocols Supported:** GSM

### **Georgia PCS**

**Coverage Area:** GA: Valdosta  
**Affiliate of:** Sprint PCS  
**Protocols Supported:** CDMA

### **GTE Wireless**

**Coverage Area:** Ohio: Cincinnati, Dayton; Wash.: Seattle, Spokane  
**Affiliate of:** Merged with Ariel, BAM and PowerTel to form Verizon  
**Protocols Supported:** CDMA

### **High Plains/Midwest LLC**

**Coverage Area:** Unknown  
**Protocols Supported:** GSM

### **Horizon Personal Communications Inc.**

**Coverage Area:** Ohio: Chillicothe  
**Affiliate of:** Sprint PCS  
**Protocols Supported:** CDMA

### **Iowa Wireless**

**Coverage Area:** Iowa: Cedar Rapids, Iowa City  
**Protocols Supported:** GSM

### **Message Express**

**Coverage Area:** Unknown  
**Protocols Supported:** GSM



### **Microcell Telecommunications Inc.**

**Coverage Area:** Alberta: Calgary; **British Columbia:** Vancouver, Victoria; **Niagara Region;** Ontario: Guelph, Brantford, Cambridge, Kitchener-Waterloo, Ottawa-Hull, Toronto; **Quebec:** Montreal, Quebec City; **Manitoba:** Winnipeg  
**Protocols Supported:** GSM

### **Nevada Bell Mobile Services**

**Coverage Area:** Nev.: Las Vegas  
**Affiliate of:** Subsidiary of SBC Communications  
**Protocols Supported:** GSM

### **NPI Wireless Inc.**

**Coverage Area:** Mich.: Traverse City  
**Protocols Supported:** GSM

### **NTCH Inc.**

**Coverage Area:** Colo.: Grand Junction  
**Protocols Supported:** CDMA

### **NTELOS**

**Coverage Area:** Va.: Charlottesville; **W.Va.:** Charleston, Huntington  
**Protocols Supported:** CDMA

### **Omnipoint Communications Inc.**

**Coverage Area:** Folded into VoiceStream  
**Affiliate of:** Acquired by VoiceStream Wireless  
**Protocols Supported:** GSM

### **Pacific Bell Wireless**

**Coverage Area:** Calif.: Bakersfield, Central Valley, Los Angeles, Modesto, Sacramento, San Diego, San Francisco; **Nev.:** Tahoe/Reno  
**Affiliate of:** Subsidiary of Qwest  
**Protocols Supported:** GSM

### **Panhandle Telecommunications System Inc.**

**Coverage Area:** Unknown  
**Protocols Supported:** GSM

### **PCS One Inc.**

**Coverage Area:** Unknown  
**Protocols Supported:** GSM

### **Personal Comms Network**

**Coverage Area:** Unknown

**Protocols Supported:** *GSM*

### **Pine Belt Wireless**

**Coverage Area:** Ala.: Camden, Marion, Selma

**Protocols Supported:** *CDMA*

### **PinPoint Wireless**

**Coverage Area:** Unknown

**Protocols Supported:** *GSM*

### **PowerTel Inc.**

**Coverage Area:** Ala.: Anniston, Auburn, Birmingham, Dothan, Florence, Gadsden, Huntsville, Lanett, Montgomery, Muscle Shoals, Opelika, Tuscaloosa, Valley; Fla.: Gainesville, Jacksonville, Panama City, Tallahassee; Ga.: Athens, Atlanta, Augusta, Columbus, Macon, Savannah, Warner Robins, WestPoint; Ky.: Bowling Green, Frankfort, Louisville, Lexington; Miss.: Jackson, Tupelo; S.C.: Aiken; Tenn.: Chattanooga, Jackson, Memphis; Nashville

**Affiliate of:** Acquisition by VoiceStream pending

**Protocols Supported:** *GSM*

### **PrimeCo Personal Communications LP**

**Coverage Area:** Unknown

**Affiliate of:** Subsidiary of Verizon Wireless

**Protocols Supported:** *CDMA*

### **Roseville Communications**

**Coverage Area:** Calif.: Citrus, Folsom, Granite Bay, Orangevale, Rocklin, Roseville

**Protocols Supported:** *CDMA*

### **SBC Ameritech**

**Coverage Area:** Ohio: Cleveland

**Affiliate of:** Subsidiary of SBC Communications

**Protocols Supported:** *CDMA*

### **SOL Communications**

**Coverage Area:** Texas: south Texas

**Protocols Supported:** *GSM*

### **Southeast Telephone Ltd.**

**Coverage Area:** Ky.: Pikeville; W.Va.: Williamson

**Protocols Supported:** *GSM*

### South Carolina Phone LLC

**Coverage Area:** Unknown

**Protocols Supported:** GSM

### TeleCorp PCS

**Coverage Area:** Ark.: Fort Smith, Little Rock; La.: Houma, Lake Charles, Thibodeaux, New Orleans; Mass.: Auburn, Cape Cod, Martha's Vineyard, Nantucket, Worcester; Miss.: Oxford; Mo.: Columbia/Jefferson City; N.H.: Concord, Manchester, Nashua; Puerto Rico; Tenn.: Jackson; Tx.: Beaumont

**Affiliate of:** SunCom/AT&T Wireless

**Protocols Supported:** TDMA

### Third Kentucky Cellular Corp.

**Coverage Area:** Ky.: Corbin, London, Williamsburg

**Protocols Supported:** GSM

### Tritel

**Coverage Area:** AL.: Anniston, Auburn, Birmingham, Decatur, Huntsville, Mobile, Montgomery, Opelika, Tuscaloosa; GA.: Dalton; KY.: Bowling Green, Corbin, Hopkinsville, Lexington, Louisville, Madisonville, Owensboro; MS.: Biloxi, Brookhaven, Columbus, Gulfport, Hattiesburg, Jackson, Laurel, McComb, Meridian, Pascagoula, Starkville, Tupelo, Vicksburg; TN.: Chattanooga, Clarksville, Cleveland, Cookeville, Knoxville, Nashville

**Affiliate of:** AT&T Wireless

**Protocols Supported:** TDMA

### Triton PCS Inc.

**Coverage Area:** Ga.: Athens, Augusta; N.C.: Asheville, Fayetteville, Goldsboro-Kinston, Greenville-Washington, Hickory-Lenoir, Jacksonville, New Bern, Rocky Mount, Wilmington; S.C.: Anderson, Beaufort, Charleston, Columbia, Florence, Greenville-Spartanburg, Greenwood, Hilton Head, Myrtle Beach, Savannah, Sumter; Tenn.: Bristol, Kingsport, Johnson City; Va.: Charlottesville, Danville, Fredericksburg, Harrisonburg, Lynchburg, Martinsville, Norfolk-Virginia Beach, Roanoke, Richmond, Staunton, Waynesboro, Winchester

**Affiliate of:** AT&T Wireless

**Protocols Supported:** TDMA

### US Unwired

**Coverage Area:** Ala.: Anniston, Birmingham, Chilton Area Counties, Mobile, Montgomery; Ariz.: Hot Springs, Nevada Area Counties; Ark.: Little Rock, Hot Springs, Nevada Area Counties; Fla.: Jackson Area County, Pensacola; La.: Alexandria, Baton Rouge, Houma, Lafayette, Lake Charles, Monroe, Shreveport, Houma/Thibodaux; Miss.: Jackson, Meridian, Vicksburg; Texas: Beaumont, Longview, Lufkin, Texarkana, Tyler, Nacogdoches

**Affiliate of:** Sprint PCS

**Protocols Supported:** CDMA

### **Wireless Alliance LLC/Unicel PCS**

**Coverage Area:** Minn.: Duluth, Moorhead, Virginia-Hibbing; N.D.: Fargo; Wis.: Superior

**Protocols Supported:** GSM

### **WirelessNorth**

**Coverage Area:** Minn.: Moorhead; N.D.: Fargo, Grand Forks

**Protocols Supported:** CDMA

### **Wireless Telecoms Co.**

**Coverage Area:** Unknown

**Protocols Supported:** GSM



## REFERENCES

The information in this report was collected from over thirty different sources including manufacturer web sites, industry web sites, product review web sites, online periodicals and press announcements. These sources included:

Aether	Palowireless.com
Anywherelyougo	PCS Data
BellSouth	Knowledge
C/Net	PCSWorld
CDG.org	SBC
CTIA	Communications
GoAmerica	Skytel
GSM MoU	Sprint
Association	UWCC.org
GSM Data	Verizon
Knowledge	Wireless Data
GSMWorld	Forum
Mobile Data	WirelessWeek
Association	YadaYada
Omnisky	
Outlook	
Palm.net	