

Chapter 3. Broadband Market Competitors

Broadband providers in California consist of traditional telecommunications companies - incumbent local exchange carriers (ILECs), competitive local exchange carriers (CLECs), wireless companies and cable operators - as well as relative newcomers to the market, such as satellite companies, developers of new wireline broadband technologies, and fiber deployment companies. As noted in Chapter 2, many parts of California benefit from a broadband market marked by competition among multiple providers and technology platforms. Additionally, some communities have built their own broadband networks.

3.1 Incumbent Local Exchange Carriers (ILECs)

ILECs are wireline telecommunications carriers that own the legacy telephone network within a geographic area. They offer local telephone service, local toll, long distance, international, Internet access and are now offering video services through co-marketing agreements with satellite television companies such as DISH Networks. Currently, two large ILECs (SBC and Verizon), two mid-sized ILECs (Citizens and SureWest), and eighteen small ILECs operate in California. A majority of the ILECs serving California offer broadband services through affiliates established for that purpose.⁴¹

3.2 Competitive Local Exchange Carriers (CLECs)

CLECs are wireline carriers that are authorized under CPUC and FCC rules to compete with ILECs to provide local telephone services. They often package their local service offerings with local toll, long distance, international, Internet access, cable and/or video services. Under policies adopted by the CPUC, the FCC and the Telecommunications Act of 1996 (1996 Act), CLECs are not required to duplicate ILEC local service offerings. They can choose which customers to serve (business, residential or both) and what services to offer.⁴² CLECs provide telephone services in one of three ways, or a combination thereof:

- (a) Building network facilities needed to connect themselves to their customers' premises;
- (b) Purchasing telecommunications services from another carrier (typically an ILEC) at wholesale rates and reselling those services to their own customers at retail rates; and
- (c) Leasing parts of the ILEC network, referred to as "unbundled network elements" (UNEs).

There are 332 CLECs operating in California. Some of the larger CLECs in the state are AT&T, WorldCom, Inc., Pac-West Telecommunications Inc., and Cox California Telecom, LLC. A limited number have reported offering broadband services through affiliates.⁴³

⁴¹ In a 2003 CPUC Competition Report, 12 ILECs reported offering broadband through affiliates.

⁴² 47 U.S.C. Sections 151 et seq.

⁴³ 2003 Competition Report, supra.

Some ILECs also operate as CLECs outside their original service territories. In California, for example, SBC and Verizon each have authority to operate as CLECs in the other's service areas.

Data Local Exchange Carriers (DLECs) are an ILEC and CLEC subset. DLECs deliver broadband services generally by purchasing unbundled local loops and providing their own electronics at each end to provide DSL service to customers. DLECs traditionally have not provided voice services, although some are now offering Voice over Internet Protocol (VoIP) telephony.⁴⁴ DLECs operating in California include Covad Communications Company and SBC-Advanced Solutions Inc.

3.3 Satellite Broadband Providers

Satellite providers can deploy broadband service to customers in almost any part of the United States. Customers must install a satellite dish with a clear line-of-sight view of the southern sky. It is a popular choice for customers in rural and other areas that lack an existing broadband infrastructure, where deployment costs are often too high for other broadband providers to enter the market. Deployment costs are substantial, as they involve placing a new satellite into orbit. Satellite providers often set limits on data downloads, with overage charges applied if a customer goes over his or her quota. Three prominent satellite broadband service providers serving residential customers in the U.S. are DirecWay, Echostar and StarBand. DirecWay and StarBand currently offer service in California.

Other providers are entering the market. Wild Blue's plans to provide satellite broadband service literally got off the ground in mid-2004 with the successful launch of the Anik F2 satellite. Wild Blue plans to begin offering service in the second quarter of 2005, focusing on rural areas yet unreached by DSL and cable providers. Wild Blue plans on offering 1.5 Mbps download and 256 Kbps upstream speeds for under \$50 per month.

3.4 Wireless Broadband Providers

Wireless carriers provide broadband service using fixed or mobile wireless technology. Fixed wireless technology can offer services to large geographic areas with a modest investment. It is a particularly attractive form of broadband in rural areas, smaller towns, and suburbs. Sprint Broadband Direct and WorldCom are examples of fixed wireless providers serving customers in certain areas in California. Companies offering mobile broadband services, such as Verizon Wireless and its EvDO (Evolution Data Optimized) service, Cingular Wireless and its UMTS (Universal Mobile Telecommunications System), and Nextel and its planned OFDM (Orthogonal Frequency Divisional Multiplexing) service, are expected to play an increasingly prominent role as technologies like 3G, 4G, and WiMAX continue to develop.⁴⁵ Verizon Wireless currently offers EvDO service in San

⁴⁴ See Section 5.3 of the report for a discussion of VoIP.

⁴⁵ Stephen Lawson, "EVDO Lights Up Mobile Data," NetworkWorldFusion, August 12, 2004; www.nwfusion.com; See Chapter 4 of the report for a discussion of Wireless broadband providers.

Diego, Los Angeles and Orange Counties, and is deploying the service to Ventura County in the near future. It is estimated that by the end of the year, EvDO service will be available to half of California's residents.⁴⁶ Cingular Wireless has launched its UMTS service in six markets, including San Francisco and San Diego, and intends to continue the roll-out of this service in 2005.⁴⁷ Nextel is in an earlier stage of developing its service offering, but is expected to begin competing with Verizon Wireless and Cingular in the near future.

Other providers in California include companies like SkyPilot and NextWeb, Inc..⁴⁸ NextWeb is California's largest and fastest growing wireless Internet service provider,⁴⁹ and is discussed as a Case Study in Section 8.1.4 of this report.

3.5 Cable Providers

Cable companies provide broadband services over their coaxial cable networks. Cable providers are generally granted exclusive franchises by the jurisdictions in which they operate. Cable broadband providers serve primarily residential customers, since many homes across the nation already subscribe to cable video. There are five major cable providers in California – Comcast, Cox, Time Warner, Adelphia, and Charter, which operate in exclusive franchise territories. In addition, there are a number of smaller cable providers operating in the state, including Brighthouse Networks, Mediacom California and NPG Cable.

3.6 Broadband Overbuilders

Broadband Overbuilders are a new type of telecommunications provider. Unlike local telephone and cable television companies, which have adapted their existing networks to provide broadband, these providers focus on a core business strategy of building new fiber-optic networks which they use to provide local telephone, cable television, and high-speed Internet services. Companies must first obtain a local franchise authorizing them to begin construction and must obtain the Rights of Way to build the network.

For example, Grande Communications has announced plans to deploy an FTTP network to over a million homes and businesses in Texas over the next seven to ten years.⁵⁰ Although Broadband Overbuilders have a limited presence in California, there are several currently offering service, including SureWest, RCN, Seren Innovations (doing business as Astound!), and Champion Broadband.

⁴⁶ www.verizonwirelesspr.com; April 4, 2005 email between CPUC Staff and Verizon Wireless representative.

⁴⁷ Email correspondence between CPUC staff and representative of Cingular Wireless, April 5, 2005.

⁴⁸ James Granelli, "Network with No Strings Attached," Los Angeles Times, August 30, 2004; www.skypilot.com; www.nextweb.net.

⁴⁹ www.nextweb.net.

⁵⁰ "Grande To Deploy Fiber to the Home Targets One Million Texas Homes, Businesses," Grande Communications Press Release, January 14, 2005;

http://www.grandecom.com/About/pressroom_release.jsp?PR_ID=_PR284.

According to the General Accounting Office, once the Broadband Overbuilder begins building its network, construction usually takes between two to four years if the company has steady access to capital and has no difficulties in obtaining the necessary local government permits.⁵¹ This same study compared six markets with a Broadband Overbuilder and six without, and found that those markets with a Broadband Overbuilder had lower local telephone, cable and high-speed Internet rates.⁵²

3.7 Publicly Owned Broadband Networks

Some communities without commercial broadband providers have opted to build their own networks using public funds, or by establishing public-private partnerships. Examples of this form of broadband deployment include the Truckee-Donner project in Northern California and the City of Cerritos's project in Southern California, both of which are discussed in section 8.3.2 of this report.

⁵¹ General Accounting Office, "Wire-Based Competition Benefited Consumers in Selected Markets," GAO-04-241, February 2004; www.gao.gov/cgi-bin/getrpt?GAO-04-241.

⁵² Ibid.