

B. California Industry Profile

Metropolitan Fiber Systems

This company, headquartered in Illinois, has offices in San Francisco and Los Angeles, is the largest in the industry with 1993 revenues nationwide of \$135 million.

Services

- InterLATA Special Access (all speeds)
- Bandwidth on Demand
- IntraLATA DS1 and higher speeds
- MDS
- LAN connectivity
- Switched services

Network

- San Francisco Bay Area - 13 mile network, connecting 51 buildings in SF. Plans to interconnect with 11 central offices on the west side of San Francisco Bay. Sub-ring construction is well under way for Silicon Valley communities, with ATM switching capability deployed in San Jose. MFS announced deployment plans for Oakland, other possible sites include Fremont and Hayward.
- Los Angeles - 43 mile network connecting 97 buildings, many of which sit on the Wilshire Blvd. corridor. Service is being provided to customers in the following communities: Century City, Sherman Oaks, Burbank, Glendale, Van Nuys, the Wilshire Corridor, and Westwood. Expansion plans include extending network down Sepulveda Blvd. to El Segundo, and down Santa Monica Blvd. to Santa Monica.
- San Diego - It has announced plans for a 66 mile, \$15 million network connecting 54 downtown San Diego buildings.

Comments

- Typical DS1 prices to business customers is \$200-225 per DS1. Volume discounts offered to IECs.
- Recently purchased Centex Telemanagement, a switched services provider/value added network, for approximately \$175 million. Centex is a toll aggregator positioned for Centrex competition with Pacific Bell on Jan. 1, 1995.

Teleport Communications Group (TCG)

Offices in San Francisco, Los Angeles, and San Diego. Revenues in 1993 estimated at \$90 million. TCG is jointly owned by a group of five cable TV companies

Services

- InterLATA Special Access; DS1, DS2, DS3, Fractional T1, SONET, ISDN
- Bandwidth on Demand
- Facility Management
- LAN connectivity
- Switched services

Network

- San Francisco Bay area - TCG has an 11 mile OC-48 fiber backbone connecting 53 buildings in the San Francisco financial district. It plans on leveraging off their cable network that connects the communities around the bay in building a fiber ring connecting these same communities.
- Los Angeles - It currently serves downtown Los Angeles, El Segundo, Culver City/West LA, Hollywood, Beverly Hills, and Santa Monica. Within two years plan to have 2000 fiber miles in the Los Angeles area.
- San Diego - TCG has partnered with Cox Cable and Time Warner in San Diego and plans to build its network utilizing Cox fiber wherever possible. Cox Cable of San Diego operates a system with 2,700 coaxial miles and 200 route miles of fiber.
- Sacramento - TCG plans to build a network in Sacramento, financing estimated at \$2-3 million.
- Expansion plans include entering markets in Tier 2 and 3 cities.

Comments

- TCG has 5E switches in San Francisco, Los Angeles, and San Diego to offer switched services in direct competition with Pacific Bell.
- TCG has agreements with 11 cable operators for joint ventures across the country, positioning them well for new ventures, with the expectation that these alliances will create new opportunities for competing with the LECs.

Intelcom Group (ICG)

ICG, based in Denver, has become the third largest CAP nationwide with its acquisitions over the past several years. It has recently purchased Bay Area Teleport (BAT) for \$12.4 million, and MTEL Digital Services for \$7 million, who operate networks in the San Francisco Bay Area and Los Angeles respectively.

Services

- InterLATA DS1, DS3 special access service
- IntraLATA DS1, DS3 special access service

Network

- San Francisco Bay Area - Regional fiber and microwave network serving San Francisco, San Francisco peninsula cities, San Jose, Oakland, East Bay communities, north through Marin county to Santa Rosa, and northeast to Sacramento.
- Los Angeles - Probable expansion of MTEL's 122 mile microwave network with fiber in Los Angeles and Orange counties.

Comments

- ICG has awarded \$6 million contract to T3plus Networking Inc. for BMX45 Broadband Bandwidth Manager/Switches and BMXview network management system.
- BAT acquisition positions ICG as CAP with widest market coverage in California.

Phoenix Fiberlink

Phoenix Fiberlink (PFI) is a subsidiary of Phoenix America Inc., whose primary subsidiary, Phoenix Leasing, has raised more than \$915 million in equity and acquired \$1.9 billion of leased assets since 1972. It has reached an agreement to be acquired by Brooks Fiber Communication, which is also to acquire Phoenix Communication LTD, a long distance reseller.

Services

- High speed (DS1 & DS3) special access and digital private line service
- "Video Conference Fiberlink" on flexible bandwidth
- LAN connectivity
- SONET
- Diverse Routing

Network

- Sacramento - Its downtown business and government network connects approximately 220 buildings, covering a 71 block area, from R St. in the south, along 7th and 12th Sts. on the west side, K and F in the north, and along K in the west. This area includes the state capitol and many other government buildings.
- Rancho Cordova - Approximately 15 miles east of Sacramento, this portion of the network will run along White Rock in the north, Prospect Parkway and Trade Center Road in the west and south, and Sunrise Blvd. in the east.
- Roseville - North of Rancho Cordova and northeast of Sacramento, this will be connected to Sacramento via fiber along the I-80 corridor.
- Expansion plans include north and east Sacramento, and Folsom.
- Network under construction in Silicon Valley.

Comments

- AT&T provided financing for approximately 60% of their Sacramento network.
- Reported that PFI has been laying fiber in San Jose down N. First and Montegue Expressway.

Electric Lightwave, Inc.

Electric Lightwave (ELI) was purchased by Citizens Utilities in June, 1990 for \$10 million. Citizens is a \$340 million public utility with numerous subsidiaries providing telecommunications, electric, gas, and water services to customers in 12 states. In California, Citizens serves customers in 22 local exchanges.

Services

- DSO, DS1, DS3 private line and special access service
- SONET
- Videoconferencing

Network

- Has applied to construct facilities and provide interLATA telecommunications services in California.
- Initial systems will be constructed in Sacramento and Los Angeles

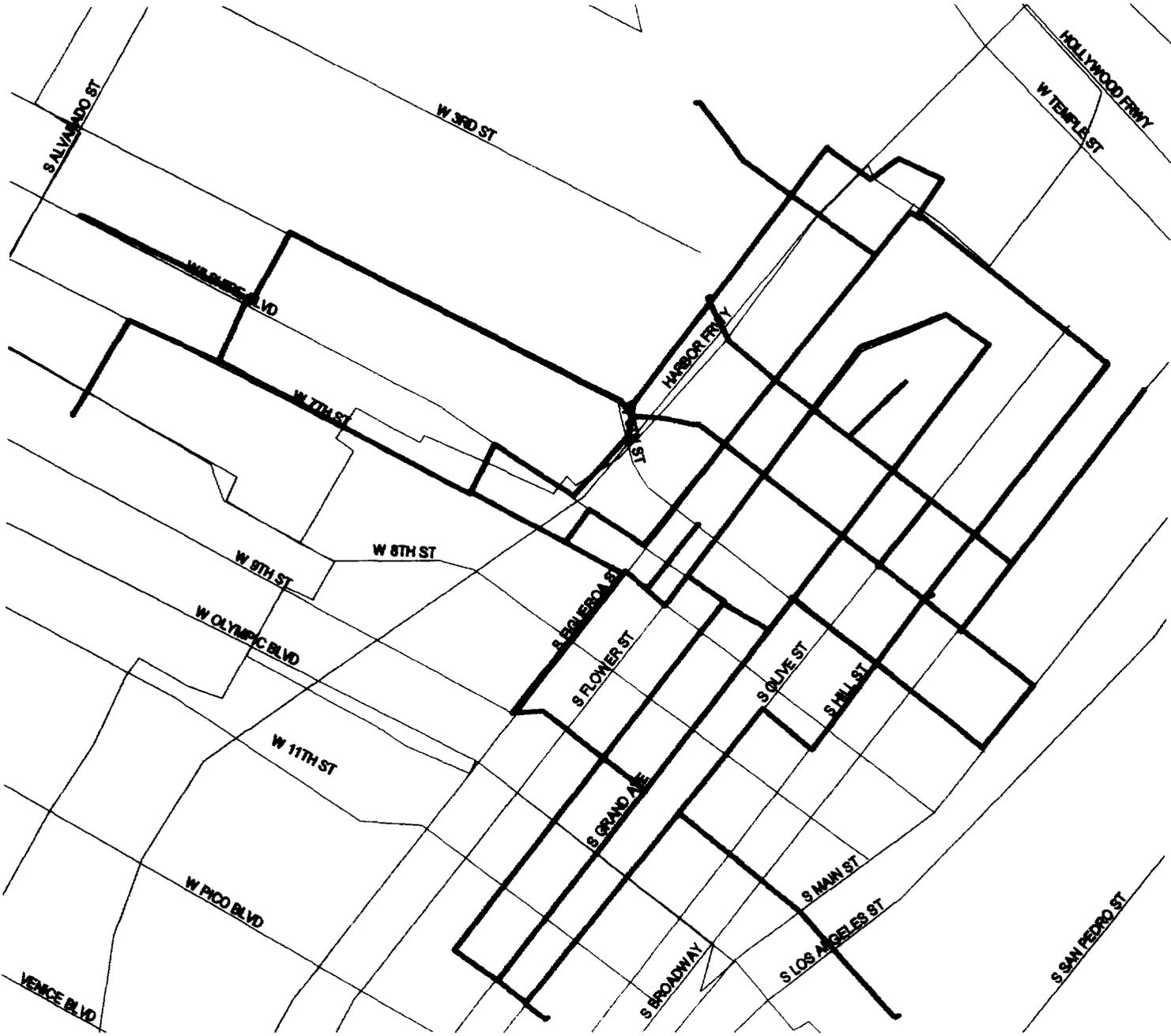
Comments

- Citizens Utilities also has an interest in Century Cable TV.

<i>Table 1 CAP Fiber Miles Deployed Nationwide</i>							
CAP	# States Served	1987	1988	1989	1990	1991	1992
MFS	12	3,059	5,861	13,374	17,219	29,338	39,803
Teleport	8	4,711	5,433	12,346	15,519	20,238	35,004
BAT	1					85	79
Phoenix Fiberlink	1					968	1,056
Electric Lightwave	2					451	4,259
Total		7,770	11,294	25,730	32,738	51,080	80,201

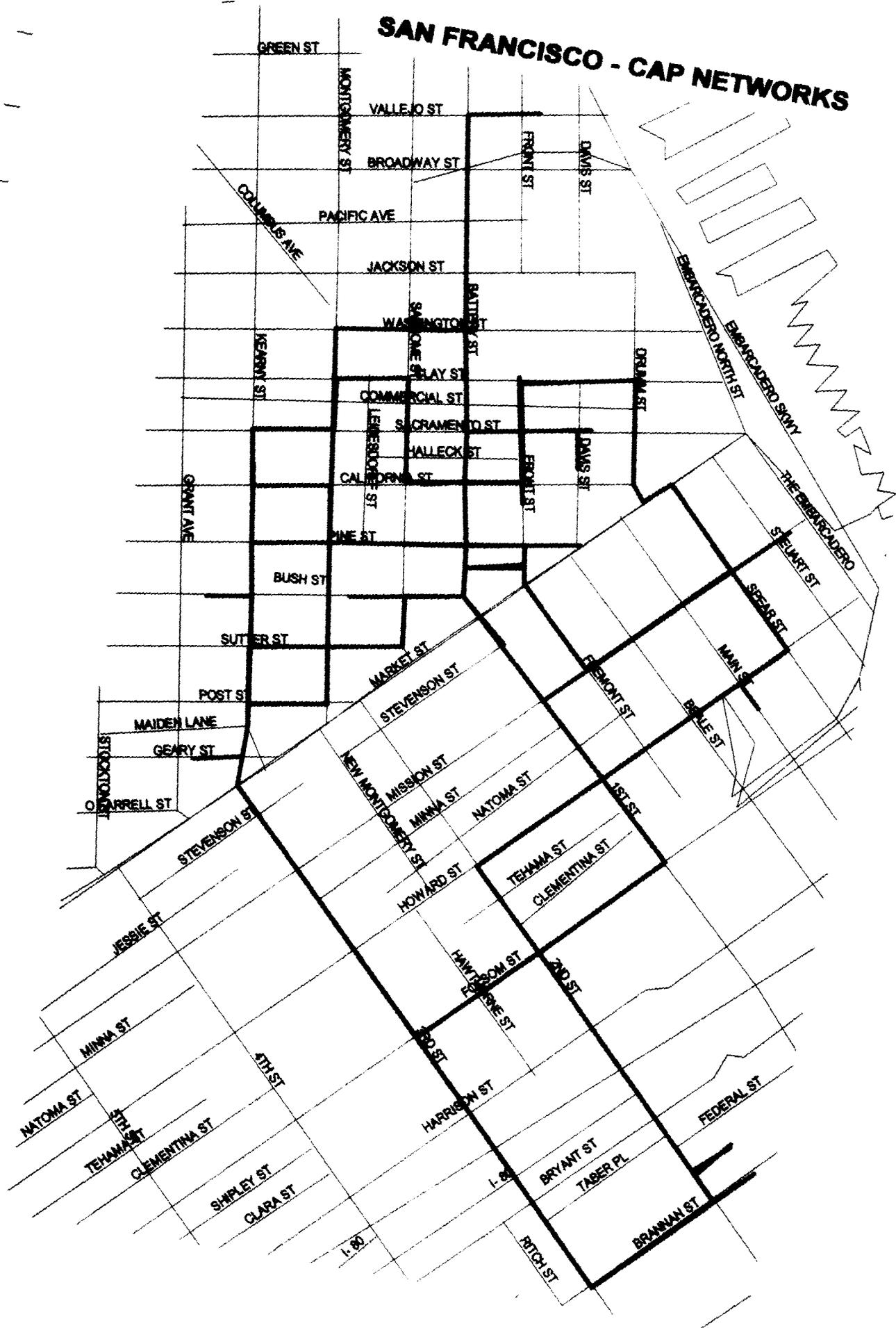
Source: Competition and Open Access in the Telecommunications Markets of California, Peter W. Huber, February 8, 1994

CAP NETWORKS DOWNTOWN LOS ANGELES



— CAP FIBER NETWORK

SAN FRANCISCO - CAP NETWORKS



— CAP FIBER NETWORK

CAP NETWORKS SACRAMENTO

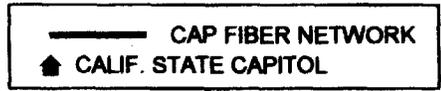
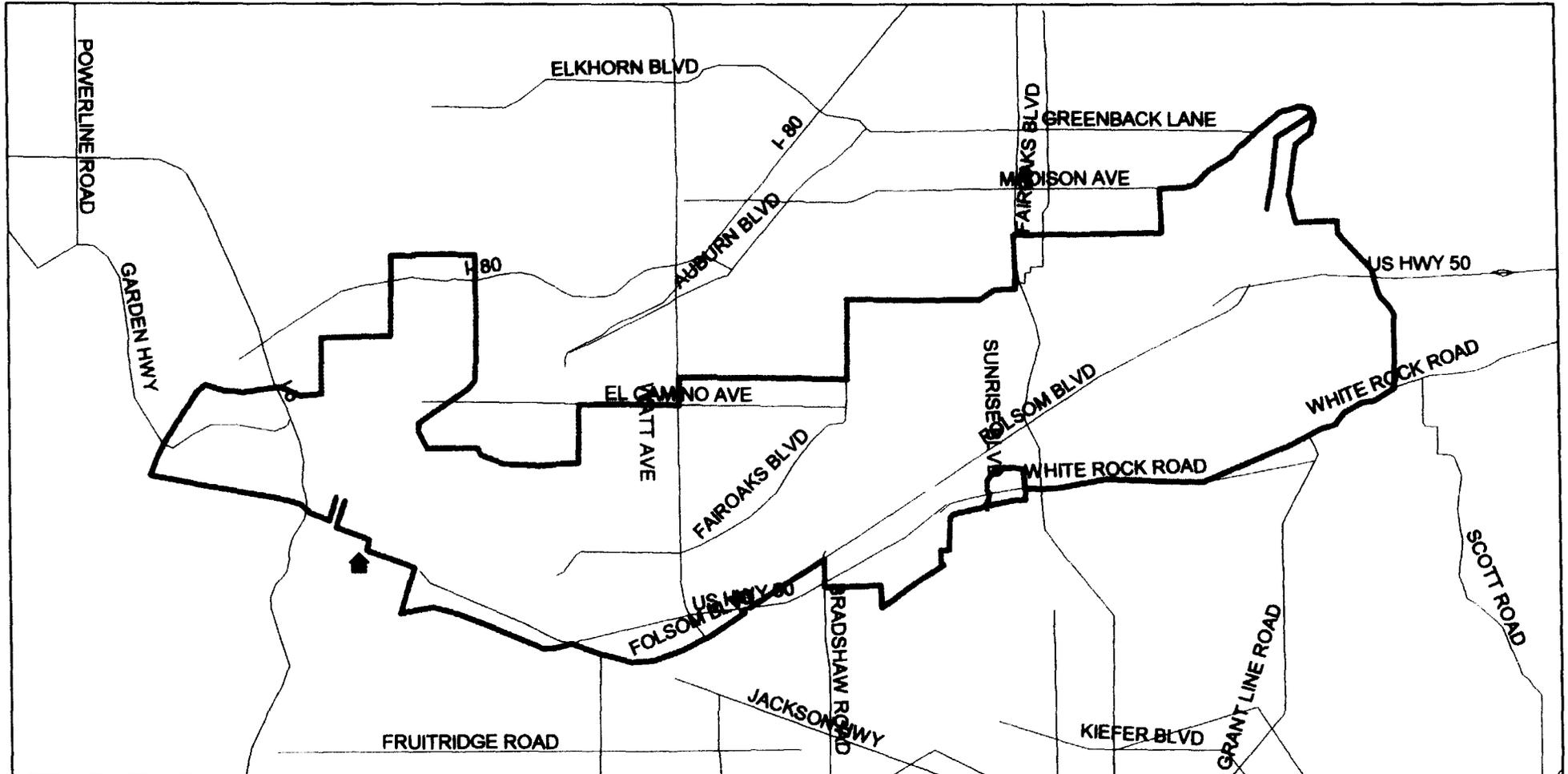


Table 2 Competitive Access Providers in California

City	MFS	Teleport	ICG	ELI	Linktel	Fiberlink
Anaheim		X				
Bel Air	X					
Beverly Hills	X	X				
Burbank	X	X				
Century City	X	X				
Compton		X				
Culver City		X	X			
East Los Angeles			X			
El Monte		X				
El Segundo	X	X				
Fremont		X				
Foster City	X	X				
Gardena	X	X				
Glendale		X	X			
Hollywood	X	X				
LA Airport	X	X	X			
Lakewood					X	
Lancaster			X			
Lodi			X			
Los Angeles	X	X	X			
Kearney Mesa	X	X			X	
La Jolla		X			X	
Mission Valley	X	X			X	
Milpitas		X	X			
Oakland		X	X			
Rancho Cordova			X			
Sacramento						X
San Bernadino			X			
San Bruno	X	X				
San Mateo	X	X				
San Diego				X	X	
San Francisco	X	X	X			
San Jose		X				
Santa Clara	X	X	X			X
Sherman Oaks	X	X				
Van Nuys		X				
Woodland Hills		X				

Existing

Burlingame	X					
Concord						X
Cupertino	X					
Cypress					X	
Lafayette		X				
La Jolla		X			X	
Menlo Park	X					
Millbrae	X					
Mountain View	X					
Newport Beach					X	
Palo Alto	X	X				
Pleasanton		X				
Redwood City	X					
San Carlos	X					
Santa Ana					X	
San Diego				X		
Santa Monica		X				

Planned

Source: USTA Reply: FCC Price CAP Review, Prof. Robert Harris, June 11, 1994

Table 3 Revenue Growth of CAPs Operating in California
(in millions - total revenues nationwide)

CAP	1992 REV	1993 REV <i>(Estimated)</i>	GROWTH
MFS	108.7	135.0	24%
Teleport	60.0	90.0	50%
ICG	17.5	43.0	145%
ELI	5.0	7.0	40%
Linkatel	2.8	5.0	79%
Fiberlink	0.2	0.7	250%
Total Revenue	194.2	280.7	45%

Source: Connecticut Research Report on Competitive Telecommunications, Nov. 1, 1993.

C. Emerging Competition

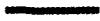
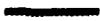
As CAPs expand the scale and scope of their operations, newer forms of competition are just beginning to address the local exchange market. In California, cable television is being joined by power and water utilities as the next entrants into the competitive fray. Even BART (Bay Area Rapid Transit) is getting into the act.

Thirty-nine of California's 58 counties are served by cable companies that already provide competitive access services of some kind in the United States, directly or through affiliates. About one third of them are served by cable companies that are allied with US West, NYNEX, Bell Canada, or other North American telcos. In the San Francisco Bay Area, TCI, one of the owners of Teleport, has surrounded the bay with its cable franchises, and is in the process of fiber-linking these communities. The synergy is obvious. In southern California, particularly in San Diego, Time Warner has signaled its intention of entering the CAP business. Time Warner, owner of 14 cable franchises in California, applied in the spring of last year for authority to provide inter and intraLATA high speed digital private line telecommunications. The application for interLATA was later withdrawn - the reason? Because the MFJ prohibits LECs from engaging in the interLATA business, and after the filing of their original request, Time Warner entered into a partnership with US West. Though the request for interLATA was withdrawn, the request for intraLATA was granted. Pacific Bell is now competing with another RBOC in its own backyard.

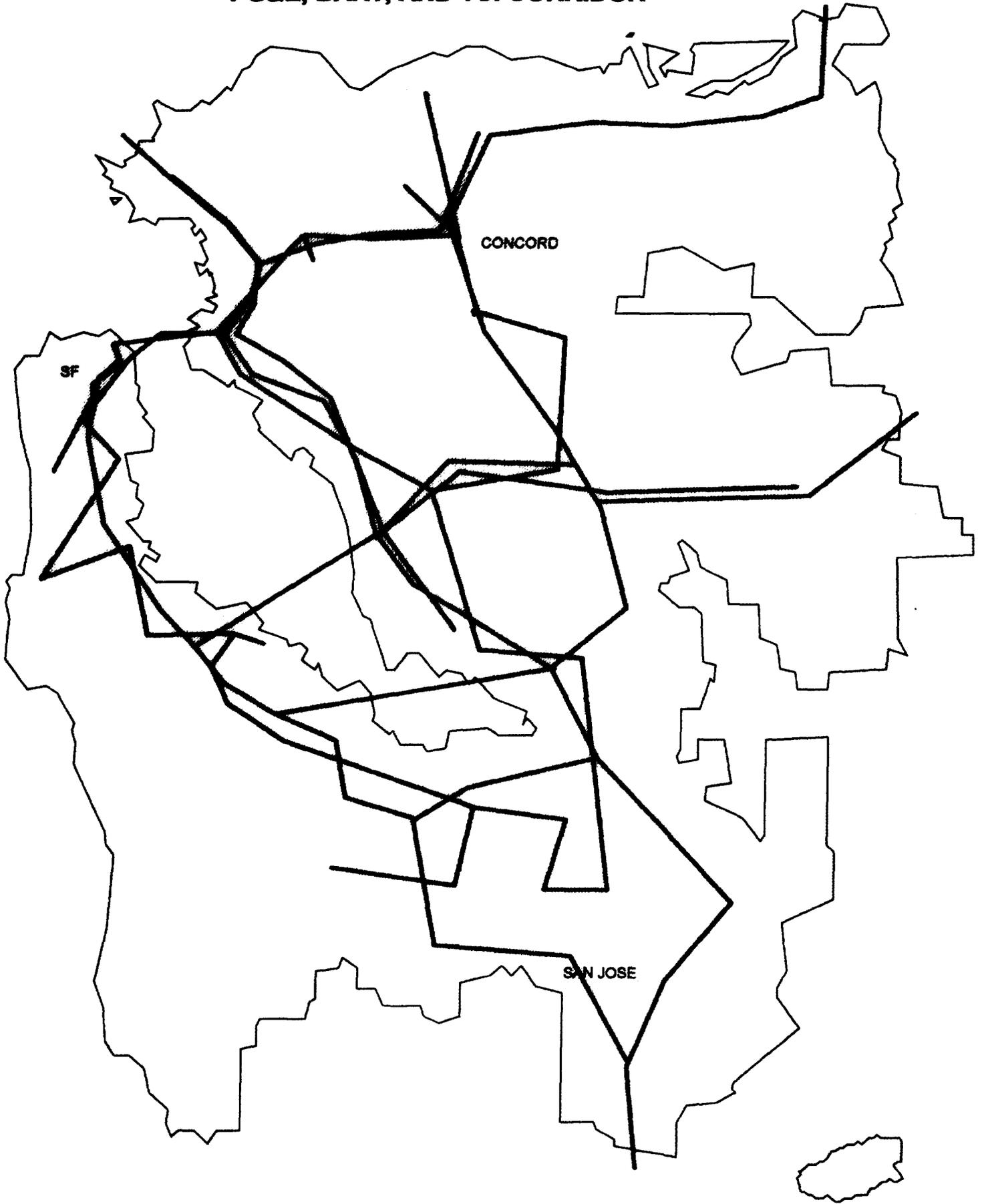
California's gas and electric utilities, most notably Pacific Gas and Electric and Southern California Edison, have built fiber facilities and are leasing excess capacity to CAPS and other telecommunications providers. BART has teamed up with MFS Network Technologies to build a system-wide network including voice, data, and SONET capabilities. The Los Angeles Department of Water and Power has built a fiber network. The concept of a telecommunications provider is becoming much more broad, much less distinct, and bringing with it a new competitive dynamic which must be recognized as a harbinger of how the market will evolve over the next decade.

EMERGING COMPETITION - FIBER ROUTES

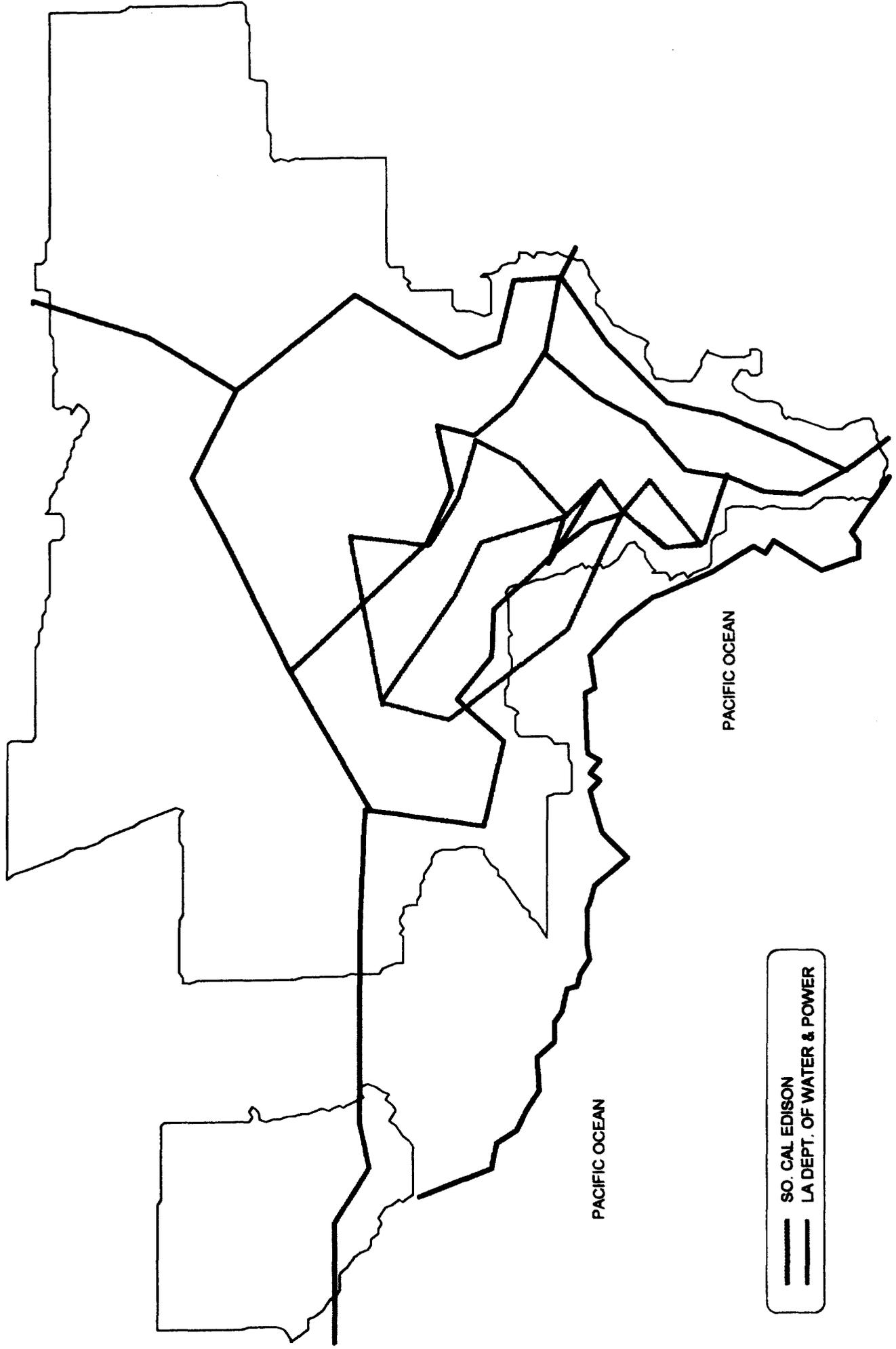


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|---|---------------------------|
|  | PACIFIC GAS & ELECTRIC |
|  | SP TELCOM |
|  | SO. CAL EDISON |
|  | SAN DIEGO GAS & ELECTRIC |
|  | LA DEPT. OF WATER & POWER |

**BAY AREA
PG&E, BART, AND TCI CORRIDOR**



LOS ANGELES BACKBONE FIBER ROUTES



Conclusion

CAPs have grown both in scale and in scope, entering new areas with products and services, some of which didn't exist even two years ago. They have made significant penetration into the core business markets in California, where the revenue and traffic concentrations are the highest, effectively targeting the lucrative, high revenue/low cost areas. They continue to build out their networks, deploying more fiber, lighting more buildings, and signing up customers with competitive impunity. The LECs are subject to a much greater degree of regulation than the CAPs, with their prices subject to much more scrutiny and oversight.

In its Price Cap Order of October 4, 1990, the Commission said that it intended to "design a regulatory system...that mirrors the efficiency incentives found in competitive markets." (para. 33) Such a regulatory system would: (1) Identify, according to sound economic criteria, what telecommunications markets are competitive; and (2) within those markets, apply the same streamlined regulation to all providers. The Commission does not lack experience designing such a system. It is precisely the approach the Commission took to the long distance business in Docket 90-132. Far too much has changed in the access business since 1990 for the Commission to consider "regulation as usual." We do not contend that 100% of our markets are 100% competitive. But neither do we seek streamlined regulation in 100% of our markets. The current system of asymmetrical regulation does not "mirror the efficiency incentives found in competitive markets." It promotes inefficiency and needlessly penalizes consumers.

More in depth analysis and discussion of the points in this paper can be found in:

- **The Enduring Myth of the Local Bottleneck**, Peter W. Huber, filed in *CC Docket 94-1* with letter from William Adler, March 15, 1994.
- **Economic Benefits of LEC Price Cap Reforms**, Prof. Robert Harris, filed with USTA's comments in *94-1*, May 9, 1994.
- **Comments on the USTA Pricing Flexibility Proposal**, Richard Schmalensee and William Taylor, also filed with USTA's comments in *94-1*, May 9, 1994.