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## A City Guide to Developing, Using, and Regulating Regional Telecommunications Networks Under the Telecommunications Act of 1996

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## I. INTRODUCTION

Cities are pursuing various initiatives to implement President Clinton's National Information Agenda ("NII").<sup>1</sup> The NII encourages public/private partnerships to build an advanced telecommunications infrastructure known as the Information Highway. These initiatives include upgrading cities' internal government networks or Private Virtual Networks ("PVNs")<sup>2</sup> and expanding Municipal Utilities<sup>3</sup> into, or developing new, Regional Telecommunication Networks ("RTNs"). This article will focus on city initiatives as developers, regulators, and users of RTNs and will highlight California's efforts in these areas. RTNs are region wide, open, switched digital broadband networks with the capability to provide voice, data, cable, and videoconferencing services at a reasonable cost to homes, businesses, and public buildings.<sup>4</sup> RTNs compete with existing and other providers for telecommunication services and are regulated by the Telecommunications Act of 1996 ("Act").<sup>5</sup>

Cities have a vested interest in RTNs for several reasons: 1) to protect the public safety and welfare; 2) to enhance internal operations and the administration of services to the public; 3) to foster economic development; and 4) to

1. The National Information Infrastructure: Agenda for Action, 58 Fed. Reg. 49,025 (1993).

2. Private Virtual Networks are networks which service a city's internal or regional needs for government operations and administration. Examples would include communication and data networks for libraries, schools, fire, police, and public works. See San Diego Data Processing Corporation Request for Proposals to Provide Telecommunications Infrastructure 7 (1995) [hereinafter San Diego RFP].

3. "Municipal Utilities" are municipally owned public utilities that can provide telephony or other communications and other public works, such as electric, gas, water, sewer and/or other utility services to residents. See, e.g., CAL. PUB. UTIL. CODE § 12801 (Deering 1990) (regarding Municipal Utility District Act).

4. See San Diego RFP, *supra* note 2, at 1; August E. Grant & Lon Berquist, *Exploring the Emerging Municipal Information Infrastructure* (visited Dec. 11, 1996) <<http://ksgwww.harvard.edu/iip/grant.html>>; City of Seattle Request for Proposals for an Information Highway 1 (1994) [hereinafter Seattle RFP].

5. Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996) [hereinafter the Act]. The Act overhauls the Communications Act of 1934, ch. 652, § 1, 48 Stat. 1064 (1934).

ensure universal access to telecommunication services at affordable prices.<sup>6</sup> In addition, many cities rely on revenue generated from telecommunication providers through franchise fees, compensation for use of public rights-of-way, and utility user taxes.<sup>7</sup>

Spurred by recent passage of the Act, cities struggle to pursue strategies as regulators, users, and/or providers of telecommunication networks and services.<sup>8</sup> As municipal providers and users, the Act establishes a framework for open competition to all telecommunications<sup>9</sup> services<sup>10</sup> by lifting restrictions imposed on telephone companies and cable companies and creating a new class of provider called "telecommunication carriers."<sup>11</sup> Telecommunication carriers can provide telecommunication services by constructing their own facilities or reselling services of existing providers. By lifting the restrictions, new entrants are allowed to compete in city and regional markets. As regulators, the Act restricts local franchise authority to regulate telecommunication carriers<sup>12</sup> but may provide compensation to cities for use of their rights-of-way.<sup>13</sup> These restrictions threaten to reduce cities' revenue base as the variety of telecommunication services available is increasing and the transactional costs for businesses are decreasing.

As cities compete to retain current and attract new businesses, some believe that cities must build RTNs to ensure that residents and businesses have equal and universal access to new services at affordable prices. However,

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6. See San Diego RFP, *supra* note 2, at 1; Grant & Berquist, *supra* note 4, at 5-7; Seattle RFP, *supra* note 4, at 1-3; Telecommunications Policy for the City of Sunnyvale, California at 5-6 (November 10, 1995) (adopted February 1996) <<http://reality.sgi.com/csp/sunnyvale/telecom-policy.html>> [hereinafter Sunnyvale Telecommunications Policy].

7. Utility user taxes are imposed on users of utilities which include electric, telephone, cable, gas, and water. The common thread is that they all use public rights-of-way to provide service.

8. See Sunnyvale Telecommunications Policy, *supra* note 6, at 5; Andrea L. Johnson, *Legal and Regulatory Issues Confronting Cities in Developing an Interconnected Fiber Optic Network: The San Diego Model*, 20 RUTGERS COMPUTER & TECH. L.J. 489, 512-25 (1994).

9. "Telecommunications" is defined as "the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received." Telecommunications Act § 3(a)(48).

10. "Telecommunications service" is defined as the "offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used." *Id.* § 3(a)(51).

11. A "telecommunications carrier" includes any provider of information services on a common carrier basis, for a fee directly or indirectly to the public, without regard to the facilities used. See *id.* § 3(a)(49), (51).

12. *Id.* § 253(a).

13. *Id.* § 253(c).

financial constraints, uncertainty in technological standards, lack of technical expertise, and actions by existing telecommunication providers to thwart competition, challenge cities to remain competitive.<sup>14</sup>

The first section of this article will examine how the Act fosters competition and delegates authority to regulate telecommunication providers and the reaction from state Public Utility Commissions (“PUCs”) and industry. The second section will discuss critical issues that must be resolved by cities as providers of RTNs. The third section will discuss how cities seek to leverage their role as users to get favorable rates and ensure universal access. The fourth section will discuss the impact of the Act on city initiatives as regulators of RTNs and suggests alternate revenue sources.

## II. IMPLEMENTATION OF THE TELECOMMUNICATIONS ACT

The Act provides a general framework for how competition of interstate, or interLATA,<sup>15</sup> and intrastate, or intraLATA,<sup>16</sup> telecommunications services will be achieved and the delegation of authority at the federal, state, and local levels. This framework enables cities to participate as providers of RTNs to compete for telecommunication services and as users to leverage favorable terms with telecommunication providers. Implementation of the Act has been delegated to the Federal Communications Commission (“FCC”) and state PUCs.

### A. *Fostering Competition*

The Act fosters competition for telecommunications services in several ways. First, state restrictions and antitrust decrees limiting competition in local exchange and long distance markets have been lifted, thereby allowing both to expand their offerings.<sup>17</sup> This means that long distance companies<sup>18</sup>

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14. Grant & Berquist, *supra* note 4, at 9–11.

15. A LATA, meaning Local Access and Transport Areas, is a geographical boundary that was established as part of the divestiture of AT&T under Judge Harold Greene’s Consent Decree in 1981. InterLATA telephone services are services, revenues, and functions of long distance carriers that begin in one LATA and terminate in another. *United States v. AT&T*, 552 F. Supp. 131 (1982), *aff’d sub nom. Maryland v. United States*, 460 U.S. 1001 (1983). Most LATAs are defined by local telephone exchanges or area codes, which are usually within 16 miles from the exchange.

16. IntraLATA services are services, revenues, and functions provided by the local exchange carriers within a single LATA.

17. Telecommunications Act § 601(a).

can provide local exchange services, and local exchange carriers (“LECs”)<sup>19</sup> can provide long distance services.<sup>20</sup> However, there are restrictions imposed upon LECs, such as Pacific Bell, before they can provide interLATA services originating within their service market.<sup>21</sup> Such services can only be provided in partnership with separate or independent affiliates<sup>22</sup> of LECs and would be provided on a negotiated basis.<sup>23</sup>

Second, cross ownership restrictions for cable<sup>24</sup> and LECs<sup>25</sup> have been eliminated,<sup>26</sup> although they are subject to a ten percent cap on financial interest and ownership<sup>27</sup> in their service area. As a result, cable companies can now provide telephony, and telephone companies can provide cable or open video services.<sup>28</sup>

Third, LECs must provide interconnection to their facilities,<sup>29</sup> including physical or virtual collocation of equipment,<sup>30</sup> and network access to private

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18. Long distance companies include AT&T, MCI, Sprint, and Competitive Access Providers.

19. Local exchange carriers are the seven Regional Bell Operating Companies: 1) Ameritech; 2) Bell Atlantic; 3) Bell South; 4) Nynex; 5) Pacific Telesis; 6) Southwestern Bell; and 7) U.S. West.

20. Telecommunications Act § 271(a).

21. In effect, the FCC regulations require that the LEC satisfy a “14-point checklist” of provisions before the FCC will allow them to enter long distance markets. Essentially the FCC must find that local markets have been opened up to competition. *Id.* § 271(c)(2)(B).

22. Section 274 of the Act also prohibits a LEC from providing electronic publishing using its own or an affiliate’s basic telephone facilities, or from forming a joint venture for electronic publishing, except through a separate and independent affiliate. The Act does, however, allow: 1) joint telemarketing or referral services on a nondiscriminatory basis; 2) teaming arrangements for electronic publishing so long as BOC provides only the facilities, services and basic telephone service and does not own the arrangement; and 3) nonexclusive joint ventures for electronic publishing where the BOC has no more than 50% equity interest or royalty interest. *Id.* § 274(c)(2).

23. *See generally id.* §§ 272–274.

24. The Act relaxes the rules governing cable television systems under the 1992 Cable Act. *Id.* § 301. By March 31, 1999, all rate regulations on all cable services except the “basic tier” that includes over-the-air channels and public and educational channels are to be removed. Telecommunications Act § 301(b).

25. *Id.* § 301(b).

26. *See id.* § 651(a).

27. *Id.* § 652(a). This ownership interest can be larger (up to 35%) in rural areas. *Id.* § 652(d)(1).

28. Telecommunications Act § 653(a)(1).

29. Section 251(b) imposes on all LECs obligations to provide resale, access to rights-of-way, and to establish reciprocal compensation arrangements for transportation and termination of traffic. *Id.* § 251(b)(1), (4)–(5).

30. *Id.* § 251(c)(6).

rights-of-way, utility poles, and conduits on a nondiscriminating basis.<sup>31</sup> In addition, LECs are prevented from discriminating in charges and practicing unfair competitive tactics,<sup>32</sup> which means LECs must provide network access and interconnection at just and reasonable rates.<sup>33</sup> The terms of interconnection are determined by negotiation between LECs and other telecommunication providers,<sup>34</sup> subject to approval by state PUCs.<sup>35</sup> State PUCs have the authority to arbitrate complaints among providers,<sup>36</sup> and the FCC has the authority to resolve jurisdictional issues. Federal courts provide judicial review of FCC decisions.

Fourth, the Act preempts the states and cities from promulgating any rules or taking any actions which will be unreasonable and have the effect of creating market barriers to entry in interstate or intrastate markets.<sup>37</sup> The FCC also has the authority under the Act to preempt city authority where it is found to violate the Act or state PUC rules, such as prohibiting market entry.<sup>38</sup>

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31. *Id.* § 251(b)(4), (c)(2)(D). The Act requires interconnection to telecommunication carriers at any feasible point at least equal in quality to what is provided by LECs to their affiliates. *Id.*

32. 47 U.S.C. § 202 (1994). This section provides that it is illegal for common carriers to:

[M]ake any unjust or unreasonable discrimination in charges, practices, classifications, regulations, facilities, or services for or in connection with like communication service, directly or indirectly, by any means or device, or to make or give any undue or unreasonable preference or advantage to any particular person, class of persons, or locality, or to subject any particular person, class of persons, or locality to any undue or unreasonable prejudice or disadvantage.

*Id.* § 202(a). This regulation allows the FCC, as a federal agency, to fine violators with a \$6,000 penalty. *Id.* § 202(c).

33. Rates must be tariffed or not higher than the per unit basis charged to others. Telecommunications Act § 274(c)(2)(D).

34. *Id.* § 252(a)(1).

35. *Id.* § 252(e). Such agreements shall be approved so long as they do not discriminate against a telecommunications carrier not a party to the agreement and are not inconsistent with the public interest, convenience, and necessity. *Id.* § 252(e)(1)–(2).

36. *Id.* § 252(b). In the first instance, the state PUC would be the arbiter of disputes between telecommunication carriers and LECs regarding interconnection and charges. Telecommunications Act § 252(b). Moreover, there is some suggestion that the state PUC would also address access to rights-of-way and regulatory or negotiated fees imposed by a city, with appeal rights to the FCC. *Id.* See generally *id.* §§ 252, 703.

37. *Id.* § 253(a). The Act states that “[n]o State or local statute or regulation, or other State or local legal requirement, may prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service.” *Id.*

38. Telecommunications Act § 253(d).

## B. Delegation of Authority

The FCC is empowered to establish procedures for network planning and can participate in developing network interconnectivity standards.<sup>39</sup> The FCC has also created an alternative dispute resolution committee to resolve any conflicts regarding industry-wide standards.<sup>40</sup> The state PUCs are empowered under the Act to establish baseline rates for interconnection, services, and network elements.<sup>41</sup> Local authorities retain jurisdiction over access to their rights-of-way; however, city franchise authority has been restricted for telecommunications services, regardless of the provider.

The FCC has recently adopted a series of rules to implement the Act,<sup>42</sup> although final adoption is likely to be delayed by legal challenges from industry and state PUCs. Several state PUCs and LECs have challenged the FCC's interpretation that the Act confers to it a specific grant of intrastate pricing authority.<sup>43</sup> The FCC rules require discounts of between 17% and 25% off of their retail phone rates and discounts of between 50% and 60% off the retail rate of network equipment.<sup>44</sup> If new competitors enter a carrier's market at wholesale rates, the FCC intended that they could resell telecommunications services at below market rates because they are willing to accept lower profit margins.<sup>45</sup> LECs feel, however, that the discounts represent illegal confiscation of their property.

## C. State Reaction

State reaction to passage of the Act has been varied. Some state PUCs view the FCC rules in part as a way to neutralize the playing field to enable new entrants to compete for telecommunications services. The FCC plan

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39. Telecommunications Act § 256(b). The parties can agree to terms without regard to the FCC Rules. The FCC creates a baseline of terms and conditions for all arbitrated agreements. *Commission Adopts Rules to Implement Local Competition Provisions of Telecommunications Act of 1996* (August 1, 1996) <<http://www.fcc.gov/nrcc6052.html>>.

40. Telecommunications Act § 256(b).

41. *Id.* § 252(d).

42. See *Report on the FCC Implementation of the Telecommunications Act* (visited Nov. 21, 1996) <[http://www.fcc.gov/Reports/imp\\_rpt.html](http://www.fcc.gov/Reports/imp_rpt.html)>.

43. The Act expressly requires the FCC to refrain from enacting, applying, or enforcing unnecessary regulations related to charges, practices, and classifications. Telecommunications Act § 401.

44. Leslie Cauley & Bryan Gruley, *Telecommunications: Baby Bells Win Possible Delay of Competition*, WALL ST. J., Oct. 16, 1996, at B1.

45. R. Clark Wadlow & Rosalind M. Parker, *Goal of '96 Communication Act is to Foster Competition*, BUS. L. TODAY, Sept.–Oct. 1996, at 11.



reflects a concern that state PUCs enjoy a long-standing relationship with LECs which may cause them to favor LECs.<sup>46</sup> However, it seems that many states have taken heed of the FCC plan. For example, Texas regulators have approved a plan for AT&T competition with SBC Communications with a resale discount of 21.5%, within the range proposed by the FCC.<sup>47</sup> State regulators from Iowa, Illinois, Michigan, and Pennsylvania have followed suit, approving a twenty-two percent discount for reseller services.<sup>48</sup>

It is clear that those states that are serious about facilitating competition are moving forward notwithstanding legal challenges to the Act. There are more than 180 pending state arbitrations on interconnection agreements among LECs and other local companies.<sup>49</sup> The Washington Utility and Telecommunications Commission ("WUTC"), for example, has already conducted seven arbitration proceedings under the Act.<sup>50</sup> The WUTC is proceeding on generic costing and pricing rules.<sup>51</sup> The arbitrations are leading to interim rates, while the generic pricing rules will determine long-term pricing.<sup>52</sup>

Unfortunately, these efforts are not necessarily the norm. Other state PUCs feel that the Act and current litigation surrounding FCC interconnection rules will delay or hinder their efforts to promote intrastate competition.<sup>53</sup> This is not necessarily due to inaction by state PUCs but rather to efforts by industry advocates to lobby the FCC and states to accept various interpretations of the Act.<sup>54</sup> For example, Brooks Fiber Communications of Grand Rapids, Michigan was haggling for more than a year over an interconnection pact with Ameritech. The talks were halted after passage of the Act. In addition, in late 1995 prior to passage of the Act, WUTC issued a benchmark decision requir-

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46. Cauley & Gruley, *supra* note 44, at B1.

47. Gautam Naik & Edward Felsenthal, *Business Brief: Justice Thomas Rejects Request to Reinstate Phone-Market Rules*, WALL ST. J., Nov. 1, 1996, at B4.

48. *Id.*

49. *Id.* AT&T requested a higher rate of 35%, and SBC only wanted to offer only 13%.  
*Id.*

50. Telephone Interview with Tom Wilson, Regulatory Consultant, Washington Utilities and Transportation Commission (Dec. 21, 1996). There have been three arbitration decisions, 44 agreements pending negotiation, no final agreements, and two interconnection agreements under review. See *Summary of Federal Telecommunications Act of 1995* (visited July 1, 1996) <<http://www.washington.edu:1180/wutc/news/fedtelecom.html>>.

51. Interview with Tom Wilson, *supra* note 50.

52. *Id.*

53. *Id.*

54. *Cf.* Statement of Reed E. Hundt, Chairman, Federal Communications Commission on Implementation of the Telecommunications Act of 1996 Before the Subcommittee on Telecommunications and Finance Committee on Commerce (July 18, 1996) <<http://www.fcc.gov/Reports/reh71896.html>> [hereinafter Statement of Reed E. Hundt].

ing local interconnection for U.S. West and GTE.<sup>55</sup> Since passage of the Act, however, they have started the interconnection contract process all over again.<sup>56</sup>

#### D. Industry Reaction Since Passage of the Act

The goal for all providers is to be full service providers, bundling such existing and new services as local, long distance, and wireless services. Since the passage of the Act, providers have pursued various strategies to diversify into other areas, while protecting existing markets. One direct by-product of the Act is a flurry of mergers.<sup>57</sup> There have also been notices of new offerings with subsequent scaling back of plans, no price reductions, but proposed price increases.<sup>58</sup> Whether the net effect of these efforts will result in competition remains to be seen.<sup>59</sup>

Long distance companies and LECs have already begun fierce competition for the \$70 billion long distance market and the \$100 billion local service market.<sup>60</sup> Long distance companies, anxious to get into local telephone markets, have filed for local certification in all fifty states. In a move to compete for local exchange service, AT&T is proposing to offer preemptive discount pricing to new customers in several local markets.<sup>61</sup> Under this plan, AT&T would expand pricing discounts to areas such as Illinois, to compete with Ameritech, by offering three months of free, unlimited "local toll"

55. *Implementing the Telecommunications Act '96* (Nov. 30, 1996) <<http://www.Washington.edu/wutc/telecom/act9.html>>.

56. Interview with Tom Wilson, *supra* note 50.

57. Regulators have approved a merger between Bell Atlantic and Nynex and between Time-Warner and Turner Broadcasting. SBC has bought Pacific Telesis, pending approval from regulators. LDDS/World Com has bought UUNet, an Internet Provider. World Com then bought MFS to make the fourth largest telecommunication vendor in the United States. British Telecom has bought MCI, to be called Concert. This merger, subject to approval by the FCC and the Department of Justice, will result in the second largest global carrier after AT&T. See Charles Stein, *For New Year, State Will be Ringing in Much of the Old; Same Boring Trends Should Mean Good News*, B. GLOBE, Jan. 5, 1997, at D6.

58. Mark Robichanx, *TCI to Boost Cable Rates, Add Channels in a Bid to Improve Operating Margins*, WALL ST. J., Nov. 22, 1996, at A4. But see Mark Robichanx, *Bad Call: Malone Says TCI Push into Phones, Internet Isn't Working for Now*, WALL ST. J., Jan. 2, 1997, at A1.

59. See John R. Wilke & Bryan Gruley, *Long-Distance Pitch Hits Snag for Ameritech*, WALL ST. J., Jan. 15, 1997, at B5; John R. Wilke, *FCC Sees Slow Growth in Competition, May Have to Review Deregulation Plans*, WALL ST. J., Jan. 6, 1997, at B6.

60. John J. Keller, *Telecommunications: AT&T Discounts Signal a National Price War* WALL ST. J., May 30, 1996, at B1.

61. *Id.*

calling.<sup>62</sup> These discounts are designed to counter efforts by the LECs, in areas such as Connecticut, to steal market share for long distance service.

Ameritech, Bell Atlantic, and Pacific Telesis have opted to sidestep regulators to compete for long distance and local telephone service by setting up separate affiliate local phone companies through long-distance subsidiaries.<sup>63</sup> Such companies are unregulated as a result of a loophole created in the Act.<sup>64</sup> This arrangement would permit these LECs to resell local service while they await approval to compete for long distance service. Essentially, these LECs would resell local service to these companies.<sup>65</sup> Many fear, however, that they will offer better interconnection agreements, thereby undercutting competition from long distance providers.<sup>66</sup> Moreover, critics argue that creating separate facilities does not eliminate LEC monopolies in local markets. While under the LECs' new scheme the name and logo would be modified, such as Bell Atlantic Communications and Bell Atlantic or Pacific Bell Communications and Pacific Bell, it is likely that customers will be confused about where one company ends and the other begins.<sup>67</sup>

Notwithstanding these efforts, many existing LECs, long distance, and cable providers are going to great lengths to protect their own turfs to forestall competition.<sup>68</sup> Among LECs, Ameritech has persuaded customers to "freeze" their accounts, which makes it harder for customers to move to new rivals.<sup>69</sup> In addition, U.S. West has asked regulators to withdraw its Centrex office phone service to prevent newcomers from reselling Centrex service by its rivals. By halting Centrex service, U.S. West is effectively undermining competition.<sup>70</sup> Moreover, American Communications Services ("ACSs") has filed a complaint against Bellsouth for charges for network changes. Bell South charges ACSs only \$152 if they alter their network, but charges \$17,000 if they move

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62. *Id.*

63. Leslie Cauley, *Three Bells Sidestep Rules, Thwart Rivals*, WALL ST. J., July 15, 1996, at A3.

64. Under the Act, LECs must open up their networks to rivals and sell services at non-discriminatory rates. Such obligations, however, do not extend to their unregulated business, including long distance service, because it is ancillary to their primary business.

65. Cauley, *supra* note 63, at A3.

66. *Id.*

67. *Id.* Polls indicate that some customers still believe AT&T offers local service or that the Bells offer long distance, something they have been prohibited from doing since 1983. *Id.*

68. Leslie Cauley, *Telecommunications: Telecom Concerns Love Rivalry Fostered by New Law, Unless It's in Their Market*, WALL ST. J., March 25, 1996, at B1.

69. *Id.*

70. *Id.*

to a competitor.<sup>71</sup> Long distance carriers such as AT&T are pushing regulators to bar the LECs from sharing customer data or marketing. Cable companies have followed suit. Time-Warner's HBO network refuses to provide its programming to Ameritech for Bell's new cable systems. In addition, exclusive contracts with Continental Cablevision, Inc. block it from selling to Ameritech.<sup>72</sup>

Whether these current trends will continue remains to be seen. What is beginning to seem clear is that competition will likely take longer and grow on a smaller scale than what was initially presumed.

### III. CITY INITIATIVES AS PROVIDERS OF RTNS

Most governments either own municipal utilities<sup>73</sup> or have contracts with existing telecommunication providers to develop and/or maintain government information and communications systems. City initiatives involve municipal utilities who are upgrading or expanding their PVNs,<sup>74</sup> or who have accepted the challenge to upgrade or build municipal RTNs.<sup>75</sup> As PVNs are not regulated by the Act, this discussion will focus on municipal RTNs. RTNs are subject to regulation under the Act to the extent they provide telecommunication services to the public indiscriminately, or act as public switched networks.<sup>76</sup>

71. *Id.*

72. *Id.*

73. The Constitution of the State of California, for example, permits a municipal corporation to own or operate public works to provide communications services to the municipality. CAL. CONST., art. XI, § 9(a). Division 5-6 of the California Public Utilities Code ("CPUC") pertains to the Municipal Utility District Act. *See* CAL. PUB. UTIL. CODE §§ 11501-14403.5 (West 1994). Moreover, a district may construct or own works for supplying the district with telephone services or other means of communications. *Id.* § 12801.

74. PVNs do not compete with existing providers for public services and are therefore exempt from regulation under the Telecommunications Act. There is some indication that at the point the PVN links to the public switched network it would be subject to state PUC jurisdiction under the Act. *See Rulemaking on the Commission's Own Motion to Govern Open Access to Bottleneck Services and Establish a Framework for Network Architecture Development of Dominant Carrier Networks*, No. 93-08-026, 1993 Cal. PUC LEXIS 525, at \*5 (Aug. 4, 1993).

75. These cities include: Glasgow, Kentucky; Holland, Michigan; Orangeburg, South Carolina; Austin, Texas; Denton, Texas; Manassas, Virginia; Seattle, Washington; Anaheim, California; and Cedar Falls, Iowa. *See* Grant & Berquist, *supra* note 4, at 5.

76. *See* Telecommunications Act § 202(49).

There are approximately 100 municipal RTN programs underway throughout the country, most of which were initiated before the Act.<sup>77</sup> These programs reflect a “bottom-up” approach to infrastructure development where cities, instead of the state, pursue RTNs.<sup>78</sup> A “bottom-up” approach has been used in California, for example, where the cities’ needs are too diverse to be effectively addressed by a statewide initiative. As a result, California cities undertake infrastructure development on their own, or in partnership with other cities or counties. California cities such as Anaheim, Santa Clara, San Jose, and Palo Alto are upgrading existing municipally-owned utilities for residential telecommunications services.<sup>79</sup> The City of Anaheim, for example, has a municipally run electric utility and internal telephone system. It has chosen to compete with existing providers by building a Universal Telecommunications System connecting the City’s businesses, schools, residents, and government buildings.<sup>80</sup> The Anaheim system will utilize fifty miles of the Public Utility Department existing fiber optic infrastructure.<sup>81</sup> The issues confronting these cities are: 1) how to leverage their role to develop strategic partnerships with other cities and/or private providers to build RTNs; 2) extract favorable rates and terms to resell from existing and new providers; or 3) some combination of the above.

#### A. *Critical Issues in Developing RTNs*

Cities must resolve three critical issues in deciding whether to pursue RTNs. First, cities must decide what type of network architecture will be employed.<sup>82</sup> There are a variety of network configurations that can be employed, such as fiber in the loop,<sup>83</sup> hybrid fiber/coax<sup>84</sup> systems employed by

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77. Grant & Berquist, *supra* note 4, at 2 (citation omitted).

78. *Id.* at 1 (citation omitted).

79. See Johnson, *supra* note 8, at 491–92.

80. Grant & Berquist, *supra* note 4, at 11.

81. *Id.*

82. *Id.* at 10.

83. This is an all fiber configuration where fiber is laid up to a node, be it a subscriber’s curb, a building, or a service area. This technology employs a fiber-fed node with dedicated drops from that node to the subscriber. See also Hamid H. Lalani, *The First Hundred Feet: The Local Access Network Perspective* (visited Dec. 11, 1996) <<http://ksgwww.harvard.edu/iip/lalani.html>>.

84. Cable companies traditionally used a tree and branch configuration. To take full advantage of fiber’s greater bandwidth, cable companies have converted to a fiber-to-the-feeder (“FTTF”) or star-star-bus (“SSB”) architecture. The hybrid fiber-coaxial configuration send digital video via fiber to hubs within the community and then utilize existing coaxial lines into subscribers’ homes. See Grant & Berquist, *supra* note 4, at 4.

cable companies,<sup>85</sup> or hybrid fiber/copper or twisted pair systems<sup>86</sup> employed by telephone and electric companies. Each type of system has its advantages and limitations. However, as technology continues to develop, what is state of the art today could well be outdated by the time the network is completed.<sup>87</sup> Some cities are taking a gamble and selecting one standard over another.<sup>88</sup> Most cities, however, are ill equipped to gamble on one or another inasmuch as many cities currently utilize multiple architectures.<sup>89</sup> For this reason, there is some advantage for cities to maintain a degree of flexibility in designing a hybrid system which can be upgradable in five to ten years.<sup>90</sup>

Second, cities must decide the nature and extent of equity participation, and whether they want to compete with existing providers.<sup>91</sup> Cities often seek equity participation to ensure openness and universal access.<sup>92</sup> The level of equity participation that can be negotiated, however, often depends upon a city's contribution to the partnership and the extent to which it is willing to be "at risk" for the debt obligations of the project.<sup>93</sup> Cities typically have public facilities, property, and rights-of-way including poles, which can be contributed, as well as having the authority to waive fees and taxes as incentives for equity participation.<sup>94</sup> In Anaheim, California, for example, the City is to receive a one-time payment of \$6 million and annual revenues of \$1 million or five percent of gross revenues (whichever is greater) for its rights-of-way and

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85. This configuration enables broadband, passive transmissions, generally required for video delivery systems. *Id.* at 3. It is not, however, very effective with switched or interactive services such as telephony.

86. Telephone companies use a circuit-switched star configuration, which remains unchanged by introducing fiber. What has changed by using fiber is the conversion from analog to digital and the need for advanced digital switching equipment, as well as fiber transmitters, receivers, and amplifiers. While this configuration has worked well for switched voice, telephone companies have introduced other standards to facilitate better video quality such as ATM, asynchronous transfer mode, or SONET, synchronous optical network. *Id.* at 3-4.

87. *Id.* at 9.

88. The City of Austin, Texas, which operates a municipal utility, decided to look for a strategic partner to build an advanced telecommunications network. After two years and 34 respondents, Austin selected Central & South West communications to build a hybrid fiber/coax network to interconnect all homes, businesses, and institutions. *Id.* at 5-9.

89. *See also* Lalani, *supra* note 83, at 1.

90. *See also* Grant & Berquist, *supra* note 4, at 4, 10.

91. *Id.* at 9

92. *Id.*

93. *Id.*

94. *See* sources cited *supra* note 4.

existing fiber optic infrastructure.<sup>95</sup> Anaheim is still in negotiations with its strategic partner, SpectraNet International, and the system has not been built.<sup>96</sup> Whether the city of Anaheim will realize this revenue remains to be seen.

The possibility of equity participation must be offset by the associated risks of being obligated on the debt. In Austin, Texas, for example, regulators concluded that voters would not approve tax free municipal bond financing for constructing their RTN, so they had to accept less equity participation.<sup>97</sup> Austin's proposal required a high bond debt of nearly one half of one billion dollars, almost equal to their biggest municipal project, an airport.<sup>98</sup> This factor contributed significantly in their selection process for a provider.

It is important to note that in both the Anaheim and Austin scenarios, their strategic partners are Competitive Access Providers ("CAPs"). CAPs and some long distance carriers seem willing to give cities equity interests because such partnerships give them entry into new markets and assure them a substantial customer to support their investment. Unfortunately, their proposals often include associated risks—risks that all areas will not be serviced or self funded, which many cities are unwilling to accept.<sup>99</sup> Such proposals for equity participation, however, do not seem forthcoming from existing providers. In San Diego, for example, neither of the existing providers proposed equity participation for the City, notwithstanding that it was an important evaluation criteria and goal for the City.<sup>100</sup>

Finally, cities must contemplate how they will finance the project. Financing plans in which a city is not at risk are highly speculative. Anaheim, California is using project financing to develop its network at a cost of \$50 million to \$60 million.<sup>101</sup> This means that financing for subsequent phases will be contingent upon revenue generated from completed phases. Phase one will connect commercial, industrial, and government buildings with fiber optic cable. Phase two of the plan will extend the telecommunications system to residential areas.<sup>102</sup> However, if there is insufficient revenue from phase one of the project, phase two may never be built.

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95. *Anaheim City Council Approves Memorandum of Understanding with SpectraNet to Build a Fiber Optic Universal Telecommunications System* (Aug. 20, 1996) <<http://www.anaheim.net/utility/telecom5.html>>.

96. Grant & Berquist, *supra* note 4, at 11.

97. *Id.* at 8.

98. *Id.*

99. *Id.*

100. *Id.* at 11.

101. Grant & Berquist, *supra* note 4, at 11.

102. *Id.*

In some instances, the financial risks are such that existing plans must be modified or abandoned. The cities of San Diego, California and Seattle, Washington, for example, abandoned plans to build RTNs or expand their existing public utility after passage of the Act, citing financing risks and technology concerns.<sup>103</sup> Both cities have opted, instead, to upgrade their existing PVNs.<sup>104</sup>

### B. *Municipal Initiatives for Strategic Partnerships*

There is no prohibition against cities forming strategic partners with existing providers or CAPs. However, as suggested earlier, existing providers seem to have little incentive to develop strategic partnerships with cities or with each other. This may be due to a variety of factors.

First, existing providers are already making the capital investment to compete for existing and new telecommunications services. It is generally private industry, not local governments, that has the financial and technical means to develop the infrastructure. As a result, there seems to be little value added in having the government as an equity partner. Moreover, the government could pose a threat to existing providers as a competitor for these services. It is unclear, however, whether the marketplace in most metropolitan areas can support competition by telephone and cable companies, CAPs, and local governments. In addition, some critics question whether this is an appropriate role for cities.

Second, partnerships among providers to create seamless, ubiquitous RTNs are unlikely. Interconnectivity among providers is impractical because telephone companies, cable companies, and CAPs employ different, competing, and oftentimes incompatible technologies to provide the same services.<sup>105</sup> Consequently, from the government's perspective, it may be more prudent to maintain existing relations with multiple providers until the industry becomes more mature.

Third, in many areas, local governments are already contracting with one or more providers for a variety of telecommunication and video services. This dependency would not be eliminated by cities developing a new RTN. Assuming that financing is available, it would still take years before a RTN was developed. The Austin, Texas project, for example, is projected to take six years to complete after a final franchise agreement is completed.<sup>106</sup> In

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103. *Id.*

104. *Id.*

105. See discussion *supra* pp. 526–27.

106. Grant & Berquist, *supra* note 4, at 9.



Anaheim, phase one is expected to be completed within two years, while building phase two of their RTN will be done over five years thereafter.<sup>107</sup>

In the interim, these governments would presumably still have to contract with existing providers or resellers to ensure that government operations continue to function effectively. This will likely result in redundant networks being maintained. In addition, this problem is not eliminated by dealing with CAPs or resellers. Resellers and CAPs must still negotiate interconnectivity with existing providers, which has been found in many instances to be very difficult.

Fourth, building a RTN from the bottom up without a partner is often-times not fiscally possible. The capital costs are significant and there is great uncertainty about the applications and services which are needed to generate the revenue to support such a network. There are also recurring management and administrative costs, which often cannot be met from existing revenue sources. Many cities lack the in-house technical support to perform these tasks, which means those services must be contracted to outside vendors. Existing providers and resellers have a competitive advantage here because they have the benefits of economies of scale achieved by restructuring their services using shared resources. This gives them existing revenue streams to offset the capital costs of upgrading their systems. Existing providers are being conservative in their expansion plans by upgrading their systems in stages to ensure that revenue from new applications and services will justify their investment. Consequently, it is doubtful that a city could offer more competitive rates and services in the short term than would be available from existing providers.

### C. Regulation of Municipal RTNs Under the Act

There are two ways a municipal RTN can provide telecommunication services to the public. The first is as a facilities-based carrier, where a city would own, control, operate, and/or maintain.<sup>108</sup> The second is as a reseller, where a city would not construct any facility but would purchase unbundled network elements from the LEC or resell an incumbent's retail service.<sup>109</sup>

As a facilities-based carrier, a municipal RTN can sell or lease their facilities, lines, or conduits to any person.<sup>110</sup> A municipal RTN would be

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107. *Id.* at 11.

108. *Commission Adopts Rules to Implement Local Competition Provisions of Telecommunications Act of 1996* (August 1, 1996) <<http://www.fcc.gov/nrcc6052.html>>.

109. *Id.*

110. *See* CAL. PUB. UTIL. CODE §§ 12804–12808 (Deering 1990).

required to file tariffs with the state PUC for telecommunications services, as would other telecommunication carriers. In addition, a facilities-based carrier must also make its services available for resale to other telecommunication carriers on a nondiscriminatory basis.<sup>111</sup>

In California, for example, municipal facilities-based carriers must provide service to any customer who requests it and is located within 300 feet of their transmission facilities.<sup>112</sup> They are not required to build out facilities further than 300 feet, although it could readily service such customers through the use of unbundled wireline or wireless local loops obtained from a LEC. Additionally, such carriers must submit a Proponent's Environmental Assessment for any construction project that will withstand review under the California Environmental Quality Act.<sup>113</sup>

Cities can also be resellers of LECs such as Pacific Bell or GTE for local and intraLATA services, as well as for interLATA services from any other certificated provider. As a reseller, a city would not be limited to providing services within the city or the surrounding region, but could apply for state-wide authority.<sup>114</sup>

As any other telecommunications carrier, a city RTN would be required to serve all customers requesting service within its designated territory on a nondiscriminatory basis.<sup>115</sup> The service area map must be filed with the state PUC. The bulk of certification requirements pertain to financial qualifications that a city should be able to meet.<sup>116</sup>

RTN providers will likely qualify for a Certificate of Public Convenience and Necessity ("CPCN") for local, intraLATA, and interLATA telecommunications services within the state. The certification requirements are not onerous and are easier for resellers, who do not have to construct facilities,

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111. *Id.* § 1001. Decisions granting Certificates of Public Convenience and Necessity for all facilities-based carriers are further required to provide services for the Deaf and Disabled (they can be the resale of LEC services) and 611 repair service. Finally, redlining is prohibited and subject to strong action by the FCC. *Id.* § 4.

112. California Public Utilities Commission Decision 96-02-072 app. E, at 8 § F(2) (Feb. 23, 1996).

113. *See id.* at app. E.

114. *See* California Public Utilities Commission Decision 95-12-056, app. C, at 9 § F (Dec. 20, 1995).

115. *Id.* The city would be required to provide 1+ presubscription or 10xxx equal access to any interexchange carrier which subscribes to its switched access services. *Id.* § F(5).

116. *See* California Public Utilities Commission Decision 95-12-056, app. C (Dec. 20, 1995).

than for facilities-based services.<sup>117</sup> Many facilities-based providers are also authorized resellers.

If a municipal RTN uses any type of satellite services, the FCC has the authority to regulate such services.<sup>118</sup> The FCC has the exclusive jurisdiction over Direct Broadcast Satellite services and can preempt tariff and rate regulation of competitive telecommunications companies without market power.<sup>119</sup> As a result, cities cannot impose any taxes or fees on satellite services providing direct-to-home programming,<sup>120</sup> nor can they impose any assessment or tax for the privilege of doing business, regulating, or raising revenue.<sup>121</sup>

Municipal RTN services provided through radio bands or microwave technologies would require an FCC license,<sup>122</sup> if they have not already obtained such authority.<sup>123</sup> Many municipally-owned public utilities are set up as cooperatives and are therefore exempt from regulation governing utilities, rights-of-way, or pole attachments.<sup>124</sup> As a result, municipal utilities would have broad discretion in their service offerings and operations.

While the Act generally permits a reasonable rate of return on interconnection fees of a LEC or a facilities-based provider, cities such as San Diego, California generally are precluded from making a profit on business enterprises absent specific authorization.<sup>125</sup> Municipal utilities, generally, may set rates and charges for their services which will allow them to be self-supporting.<sup>126</sup> However, they are restricted in being able to charge for large expenditures and the interest thereon for future needs.<sup>127</sup> As a result, municipal RTNs could not include a profit charge for access or fees.

117. Neither certification process is particularly difficult, and many state PUCs try to expedite the processing of all such applications.

118. Telecommunications Act § 205(b).

119. *Id.*

120. *Id.* § 602(a).

121. *Id.* § 602(b)(5).

122. The FCC maintains statutory authority to grant licenses to the communications industry. T. BARTON CARTER ET AL., MASS COMMUNICATION LAW 328 (West Publishing, 4th ed. 1994).

123. See also *Commission Adopts Streamlined Licensing Rules and Procedures for Fixed Microwave Services*, Report No. DC 96-10, 1996 WL 54272, at \*1 (F.C.C. Feb. 8, 1996).

124. See *Matter of Helicon Group*, 1996 FCC LEXIS 821, at \*6 n.9 (citing 47 U.S.C. § 224 (1994) (utility does not include any entity that is cooperatively owned)). Municipal utilities are exempt from regulation under the Pole Attachment Act. *Id.*; CAL. PUB. UTIL. CODE § 767.5(a)(1) (Deering 1990).

125. See *Ravettino v. San Diego*, 160 P.2d 52, 56 (Cal. Ct. App. 1945).

126. See CAL. PUB. UTIL. CODE § 12809 (Deering 1990).

127. *Id.*

#### IV. CITY INITIATIVES AS USERS OF RTNS

As users of a RTN, cities have two primary goals: 1) to ensure favorable rates for city government services and 2) to ensure that all city residents have universal access to telecommunication services at affordable prices. In some ways, these two goals seem at odds with each other. The need for reasonable access and interconnection rates from providers must be reconciled with universal access which must be subsidized by providers. While universal service will likely be achieved through federal and state regulation, it is included as a "user need" because cities can sometimes leverage their role as users to obtain favorable disposition for their residents.

##### A. Leveraging City User Needs for Favorable Rates

Cities who choose not to build RTNs may instead opt to upgrade their existing PVNs and rely upon competition from private providers to address city concerns.<sup>128</sup> Sunnyvale, California chose not to compete as a gateway with private providers. Instead, the City has formed a strategic partnership with nine other Santa Clara counties to aggregate their purchasing power with existing providers.<sup>129</sup> This partnership is negotiating with Pacific Bell to rebuild its county infrastructure to enable video and data services in addition to voice services.<sup>130</sup> To meet internal needs, the City has designed, administered, managed, and maintained its own PVN. The PVN provides interconnectivity to other government sites using a FDDI<sup>131</sup> fiber backbone with inter and intranet nodes and wired remotes sites using ISDN<sup>132</sup> lines.<sup>133</sup> The school districts operate autonomously but will have access to the City's network.

The City of San Diego has joined with San Diego County to develop a Private Virtual Network to service their internal and regional needs.<sup>134</sup> The PVN will be composed of San Diego's existing networks called SanNet,<sup>135</sup>

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128. See Grant & Berquist, *supra* note 4, at 11.

129. Sunnyvale Telecommunications Policy, *supra* note 6, at 20.

130. *Id.*

131. FDDI means Fiber Data Distributed Interface. It is a two-ring configuration which is counterdirectional to ensure redundancy in the network.

132. Integrated Services Digital Network is an international set of recommendations and standards for digital networks. WILLIAM STALLINGS, INTEGRATED SERVICES DIGITAL NETWORKS 103 (1988).

133. Telephone Interview with Shawn Hernandez, Director of Information Services, City of Sunnyvale (Dec. 18, 1996).

134. San Diego RFP, *supra* note 2, at 1.

135. *Id.* at 4.

which serve the city government, city and county libraries, and several regional justices within the San Diego LATA. This network includes a private, switched, integrated PBX telephone network and a broadband data network linking Local Area Networks.<sup>136</sup> It is proposed that this network will be upgraded and expanded with fiber nodes.

Where cities or regions have decided to aggregate their collective user needs, they have been able to negotiate favorable terms, such as postalized rates, for access from existing providers. Postalized rates are flat rate charges that are not based on distance.<sup>137</sup> The State of Ohio, for example, has been able to obtain favorable postalized rates for government and institutional users negotiating directly with existing carriers, Ameritech and LCI.<sup>138</sup> While such rates do not include commercial or resell use, it does seem to indicate that existing providers are amiable to providing some discounts for aggregated services.

### B. Universal Service

The challenge for universal access is to design a market system that will drive subsidy levels down over time.<sup>139</sup> Traditionally, "universal service" has meant access to basic telephone service.<sup>140</sup> Under the Act, "universal service" will mean affordable telecommunications services for everyone, including

136. *Id.* at 7.

137. Postalized rates are generally divided into interLATA and intraLATA rates but not based upon a per mile distance. In some instances, these rates can also include flat rates not tied to per minute or per usage units, typically found in switched lines. Interview with Fredric Goldberg, Senior Network Architect, NASA Lewis Research Center (Dec. 27, 1996).

138. Interview with Paul Karas, Contractor for the Department of Administrative Services, State of Ohio (July 1996). Ohio originally proposed to build a \$180 million statewide broadband fiber optic network known as State of Ohio Multi-Agency Communications System ("SOMACS") to connect state buildings, local governments, schools, libraries, and universities. Telecommunications Subcommittee Report, Prepared for Inter-Agency Telecommunications Committee, State of Ohio, 10-14 (1993). The State rationalized that it was not cost effective or reliable for the government to manage, maintain, and service the network, even though the State was interested in some equity participation. As a result, the State concluded that it was better to contract with existing carriers to service its needs on their networks. These carriers were selected over other existing providers in part because of their superior pricing schedule and willingness to postalize the rates. The SOMACS system is restricted to state functions including government and institutional operations. *Id.*

139. Statement of Reed E. Hundt, *supra* note 54, at 7.

140. Brenda J. Trainor, Manager Regional Telecommunications, Clark County, Nevada, The Local Government Perspective: Can the Harmonica Play in the Symphony, Address at the New York Law School's Conference: Universal Service in Context: A Multidisciplinary Perspective (Dec. 6, 1995), at <<http://cdinet.com/Benton/Retrieve/univ-service1.txt>>.

every classroom, library, and health care facility.<sup>141</sup> When and how this will be achieved has been delegated to a new joint State-Federal Board (the "Board") established under the Act.<sup>142</sup> It is noteworthy that city participation has been conspicuously excluded from the Board. This is a fundamental flaw in implementing universal service because all communications efforts begin and end with the local loop.<sup>143</sup> Until this is remedied, the cities' only leverage to ensure universal access is through their role as a user or contractor in negotiating agreements with existing providers.

What is known is that the universal service pool will require subsidies of approximately \$12 billion.<sup>144</sup> The largest piece will be for residential rate assistance.<sup>145</sup> One proposal is to fund the pool using a nondiscriminatory compensation structure that includes a variety of payment forms: "cash, capacity, service and cooperative local infrastructure development."<sup>146</sup>

The Act requires the Board to make recommendations to the FCC, which is authorized to establish and conduct periodic reviews<sup>147</sup> of rules to define<sup>148</sup> and promote universal service and access.<sup>149</sup> The Act provides certain concessions for municipal institutions,<sup>150</sup> subject to some restrictions.<sup>151</sup> Rates

141. See Statement of Reed E. Hundt, *supra* note 54, at 7. The Board recently redefined universal service to reflect "evolving" levels of services including access to advanced services that change as technology improves.

142. Section 254(b) establishes the following principles for ensuring universal access: 1) to provide quality services at just, reasonable, and affordable rates; 2) to furnish all regions of the Nation with advanced telecommunications and information services; 3) to provide all consumers with access to similar service; and 4) to try to nondiscriminatorily preserve and advance universal service. Telecommunications Act § 254(b).

143. Trainor, *supra* note 140, at 5.

144. Statement of Reed E. Hundt, *supra* note 54, at 7.

145. *Id.*

146. Trainor, *supra* note 140, at 4.

147. See Telecommunications Act § 402(a).

148. *Id.* § 254(c)(3). This definition currently includes special services provided to schools, libraries, and health care providers.

149. *Id.* § 254(c).

150. *Id.* § 254 (h)(5)(C).

151. The city would be specifically precluded from reselling any services provided to the schools, health care providers, or libraries for compensation. *Id.* § 254(h)(3). Providers cannot, for example, resell Internet access to third parties if it was provided under this program. The city would, however, be eligible for favorable cost treatment for any schools with an endowment of less than \$50,000,000 or libraries that participate in state-based funds under Title III of the Library Services and Construction Act. Telecommunications Act § 254(h)(4).

provided by “eligible telecommunications carriers”<sup>152</sup> for service to public schools and libraries for educational purposes shall be discounted by an amount determined by the FCC and the state PUC to ensure affordable access.<sup>153</sup> The FCC is also required to establish “competitively neutral” rules to enhance advanced telecommunications and information services for all public and nonprofit elementary and secondary school classrooms, health care providers, and libraries. Moreover, a telecommunications carrier would not be able to cross subsidize non-competitive services with competitive services.<sup>154</sup> This means that the pricing of government-based services would be independent of pricing for educational related services. What is unclear is whether these provisions will ensure more favorable rates than if cities, by aggregating their needs, negotiated with ineligible carriers.

Another option for cities is to provide incentives to providers for access to public rights-of-way in exchange for universal service. Sunnyvale, California, for example, advocates that providers be required to maintain open networks through their common carrier obligations.<sup>155</sup> The City wants to allow private investors access to public rights-of-way for no or low cost as compensation in lieu of full or partial encroachment fees.<sup>156</sup> By leveraging municipal resources and facilities, cities may be able to ensure that residents get affordable access to telecommunication services such as Internet access.

## V. IMPACT OF ACT ON CITY INITIATIVES AS REGULATORS OF RTNs

Cities regulate RTNs under the Act through control over access to public rights-of-way<sup>157</sup> and in exercise of their franchise authority.<sup>158</sup> The major issue for cities as regulators is the extent to which they can impose recurring or annual fees or other charges on telecommunication providers pursuant to their

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152. Eligible telecommunications carriers are common carriers or entities designated as such by the state PUC as eligible to receive Federal Universal Service Support for health, education, and library services. 47 U.S.C. § 214 (1994). This section was amended by section 102(e)(1) of the Telecommunications Act.

153. Telecommunications Act § 254(h)(1)(B).

154. *Id.* § 254(k).

155. Sunnyvale Telecommunications Policy, *supra* note 6, at 20.

156. *Id.*

157. *See, e.g.,* Saathoff v. City of San Diego, 41 Cal. Rptr. 2d 352, 354 (Cal. Ct. App. 1995). Section 105 of the San Diego City Charter vests control in the City over the use of the streets and other public places.

158. *See, e.g.* SAN DIEGO CITY CHARTER ch. 44 (1993), § 103 Franchises; § 103.1 Regulation of Public Utilities; § 104 Term and Plan of Purchase; and § 105 Right of Regulation (granting San Diego the power to grant franchises to any person, firm, or corporation).

franchise authority.<sup>159</sup> A franchise is “created when a governmental agency authorizes private companies to set up their infrastructures on public property in order to provide public utilities to the public.”<sup>160</sup>

### A. Franchise Fee Obligations on Video Providers

Cities exercise local franchise authority over cable companies and other video providers by granting nonexclusive franchises.<sup>161</sup> These franchises are adopted by city ordinance through a negotiated franchise agreement. The grant of a franchise neither precludes cities from building their own video delivery system<sup>162</sup> nor prevents cities from granting other franchises.<sup>163</sup> Under cable franchise agreements, entities are generally required to pay annual franchise fees tied to a percentage of their gross revenues. In addition, cities may negotiate other concessions, such as public access channels.<sup>164</sup>

In Sunnyvale, California, for example, the City currently has franchise agreements for wireless communications with MetroCom and for cable TV services with TCI.<sup>165</sup> Under these agreements, the franchisee pays five percent of gross revenues to the City which are deposited in the general fund.<sup>166</sup>

Notwithstanding local franchise authority, cities are expressly preempted from imposing franchise obligations on cable companies providing telecom-

159. In San Diego, for example, the City Council is empowered to: 1) provide reasonable terms and conditions of operation; 2) certify franchises for specific terms in accordance with the laws of the State; 3) terminate the franchise where the welfare of the City necessitates; 4) vest in the City plenary control over all primary and secondary uses of the City's streets and public places; and 5) grant franchises as prescribed by ordinance with the franchisee paying compensation to the City in the amount set forth in such ordinance. *Id.* § 105.

160. *Saathoff*, 41 Cal. Rptr. 2d at 356.

161. In San Diego, for example, the City Council granted a nonexclusive franchise to American Television and Communications Corporation. San Diego, Cal., Ordinance 0-15213 (Mar. 10, 1980). This franchise covers all areas in the corporate limits of the City of San Diego and automatically terminates in the year 2010 with the provisions of the ordinance renegotiable every fifth year. *Id.* § 6.

162. A franchisee does not have a cause of action for diminished value should the city build a RTN which focuses on video program services. In *Helena Water Works Co. v. Helena*, 195 U.S. 383, 388 (1904), the Supreme Court clearly stated that “the grant of the franchise does not of itself raise an implied contract that the grantor will not do any act to interfere with the rights granted” to the franchise holder.

163. For example, the San Diego Ordinance governing cable franchisees does not restrict cable competition regardless of need. San Diego, Cal., Ordinance 0-15213 (Mar. 10, 1980). See *City of Los Angeles v. Preferred Communications, Inc.*, 476 U.S. 488, 494–96 (1986).

164. 47 U.S.C. § 543 (1988).

165. Telephone Interview with Shawn Hernandez, *supra* note 133.

166. Sunnyvale Telecommunications Policy, *supra* note 6, at 12–13.



munications services under the Act.<sup>167</sup> This means that while cities could grant competing franchises for cable television services,<sup>168</sup> they could arguably not extract additional concessions from existing franchisees seeking to provide telecommunications services.<sup>169</sup> Moreover, they could not condition the grant of any franchise or renewal on providing telecommunications services.<sup>170</sup> In the event of a sale, however, this would not preclude cities from negotiating favorable concessions from a cable company. The City of Seattle, Washington for example, following a sale of the cable franchise by Viacom to TCI, is leveraging its position to negotiate with TCI for favorable residential high speed Internet access.<sup>171</sup>

Cities may also impose fees on LECs that provide video programming under “open video systems.”<sup>172</sup> These fees are tied to the gross revenue in lieu of franchise fees in cities subject to statewide franchises. The only caveat is that the rates cannot exceed the fees imposed on cable operators.<sup>173</sup>

### B. *Just Compensation for Use of Rights-of-Way*

Cities are specifically authorized by the Act<sup>174</sup> and the state PUCs<sup>175</sup> to receive “just and reasonable” compensation for use of their rights-of-way, as well as for roof rights for wireless service proceeding. Moreover, these rights may not be unnecessarily withheld. Cities are permitted to establish such fees

167. Telecommunications Act § 303(a)(3)(C).

168. A “cable television system” is defined as a system of antennas, cables, wires, lines, towers, waves guides, or any other conductors, converters, equipment, or facilities designed and constructed for the purpose of producing, receiving, amplifying, and distributing, audio, video, and other forms of electronic or electrical signals. *Id.*

169. *Id.* § 303(a)(3)(D).

170. *Id.*

171. Grant & Berquist, *supra* note 4, at 11.

172. Telecommunications Act § 653.

173. *Id.* § 653(c)(2)(B).

174. Section 253(c) provides in pertinent part: “Nothing in this section affects the authority of a . . . local government to manage the public rights-of-way or to require fair and reasonable compensation from telecommunications providers, on a competitively neutral and nondiscriminatory basis, . . . if the compensation required is publicly disclosed by such government.” *Id.* § 253(c).

175. The CPUC provides in part:

It is therefore the intent of the Legislature that public utilities and publicly owned utilities be fairly and adequately compensated for the use of their rights-of-way and easements for the installation of fiber optic cable, and that . . . publicly owned utilities have the ability, if they so desire, to negotiate a purchase, lease, or rent of access to those fiber optic cables for their own use.

CAL. PUB. UTIL. CODE § 767.7(b) (Deering 1990).

by negotiated contracts on a nondiscriminatory, competitively neutral basis.<sup>176</sup> Once the fees have been established, they must be filed with the state PUC.<sup>177</sup> The FCC and state PUCs have jurisdiction to review such fees following a complaint that they are unreasonable.

Some argue that any fees imposed must be tied to actual or incremental costs, or some related cost formula versus a revenue based formula.<sup>178</sup> Moreover, while there is no specific language that fees may be charged on an on going basis, reliance on the pole attachment provisions suggest that cities may be able to charge annual fees if they own and operate RTNs, or own their conduits or poles. The problem confronting many cities like San Diego is that they do not own existing utilities or facilities.

The Act preempts cities from taking any action that would be construed as imposing a market barrier.<sup>179</sup> Whether cities have violated this restriction is left to the states,<sup>180</sup> which generally are sympathetic to existing providers to protect their interests and to foster competition.<sup>181</sup> Neither the FCC, nor most state PUCs, have addressed city entitlements to compensation for private use of public rights-of-way. As a result, city authority to regulate RTNs is limited, and the scope of their ability to receive compensation remains unclear. This is particularly problematic for some cities in states like California.

### C. Franchise Fee Obligations on Public Utilities

Franchise requirements are generally imposed on any public utility, which include the entities supplying inhabitants with light, water, power, heat, transportation, telephone service, or other means of communication.<sup>182</sup> Telephone companies<sup>183</sup> in states like California, however, have a statewide franchise which limits a city's ability to collect annual fees.<sup>184</sup> This statewide

176. *Id.*

177. *See* Telecommunications Act § 252(h).

178. *See id.* § 252(d); *see also* CAL. PUB. UTIL. CODE § 767.5 (Deering 1990).

179. Section § 253(a) provides: "No State or local statute or regulation, or other State or local legal requirement, may prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service." Telecommunications Act §253(a).

180. *See id.* §§ 252(b)(1), 703 (regarding arbitration and pole attachments).

181. Grant & Berquist, *supra* note 4, at 9.

182. *See, e.g.,* SAN DIEGO CITY CHARTER ch. 44, § 105 (1993).

183. The California Public Utilities Code defines telephone corporation as "every corporation or person owning, controlling, operating, or managing any telephone line for compensation within this State." CAL. PUB. UTIL. CODE § 234 (Deering 1990).

184 Section 7901 states that a "telephone corporation may construct lines . . . along and upon any public road . . ." CAL. PUB. UTIL. CODE § 7901 (West 1996).

franchise applies to all telephone companies operating within the state, even if they also provide video and data services.<sup>185</sup> This restriction does not apply, however, to other public utilities like electric companies, nor does it preclude cities from imposing utility user taxes.

Sunnyvale, California for example, proposes to create an advanced digital, broadband, telecommunications infrastructure.<sup>186</sup> Pacific Bell, as the LEC, and alternative service providers are exempt from local franchising requirements including franchise fees, but must obtain encroachment permits for underground construction.<sup>187</sup> The City also has an indefinite franchise agreement with Pacific Gas & Electric for gas and electric service, under which it pays a franchise fee of one percent of gross revenues. PG&E has unrestricted access to rights-of-way, although it also must obtain an encroachment permit, but it is not subject to the customer service standards imposed on TCI as its cable provider.

While state PUCs like the California Public Utilities Commission preclude cities from collecting franchise fees from telephone companies, PUCs do allow annual, recurring fees<sup>188</sup> to be assessed by telephone companies and other public utilities. This is in addition to an “annual cost of ownership”<sup>189</sup> for access to private utility poles and supporting structures.<sup>190</sup> This disparity in the ability to collect compensation for public and private rights-of-way is unjustifiable. In essence, these cities cannot collect annual franchise fees from telephone companies for use of public streets even though these same companies can charge others for access to their privately owned conduits.<sup>191</sup> This

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185. *Id.* § 7901(3).

186. Sunnyvale Telecommunications Policy, *supra* note 6, at 6.

187. *Id.* at 7.

188. In California, for example, the annual fee for pole attachment shall be \$2.50 in the first year. Thereafter, the annual fee shall be \$2.50 or 7.4% of the public utility’s annual cost of ownership for the pole and supporting anchor. CAL. PUB. UTIL. CODE § 767.5 (c)(2)(A) (Deering 1990).

189. The “[a]nnual cost of ownership’ means the sum of the annual capital costs and annual operation costs of the support structure[s] . . . owned by the public utility. The basis for computation of annual capital costs shall be historical capital costs less depreciation.” *Id.* § 767.5(a)(9).

190. “Supporting structure” includes a duct or conduit, manhole, or handhole. *Id.* § 767.5(a)(2).

191. The Telecommunications Act imposes on all LECs obligations to provide resale, access to rights-of-way, and establish reciprocal compensation arrangements for transport and termination of traffic. Telecommunications Act § 251(b).

means that these cities arguably will not receive franchise fees from resellers of LEC telecommunication services or others who interconnect with LECs.<sup>192</sup>

Cities do have the right to impose permit fees, such as the encroachment fees previously discussed.<sup>193</sup> Such fees are fixed, one time costs that are nominal and would not account for on going maintenance of public rights-of-way.

#### D. Alternatives for Non-Municipal Utility Cities

There are two possible alternative sources of revenue that may be available to cities who do not own municipal utility facilities, such as poles or conduits, and/or who are subject to statewide franchise restrictions. The first is for cities to build municipally-owned conduits for public and private access. The second is imposing utility user taxes on telecommunication providers.

Under the first option, cities would continue to process permit applications of existing carriers for access to existing private conduits or poles, until they reach capacity. Cities could then require that all new installation of lines or networks be through conduits that the city would install and/or maintain.<sup>194</sup> This action would presumably be pursuant to a telecommunication policy that recognized the city's role as a facilitator or regulator to coordinate access and use of public rights-of-way.

It is ill-advised to apply this requirement to existing conduits because such action would likely constitute a taking, requiring compensation by the government. A phased-in approach, however, allows existing facilities to continue to operate while addressing the likely proliferation of new telecommunication carriers, and, therefore, the increased need in access to infrastructure conduits.

Such an approach could be justified on four grounds. First, cities have the authority pursuant to their police powers to coordinate among access providers

192. It is noteworthy that section 7901 of the CPUC is outdated and needs to be revised to account for new technology such as fiber optics and the convergence of services which allow cable to provide telephony over its coaxial lines. Instead, it focuses upon the method of transmission as a point of distinction for application of statewide franchise rules. CAL. PUB. UTIL. CODE § 7901.

193. See SAN DIEGO MUNICIPAL CODE § 62.0102 (1992) (governing city rights-of-way). The Code also allows the City Council to establish a schedule of fees for permits to improve or encroach within rights of way. Such fees may include fixed charges to cover the City costs. *Id.* § 62.0109.

194. It is possible that this may be subject to legal challenge as a market entry barrier to the extent it precluded a carrier from engineering its network in the most efficient manner from a technical and economic perspective.

and establish a process for gaining access to city rights-of-way.<sup>195</sup> If all new cables, lines, etc. were passed through city owned conduits, it would minimize the likely disruption to streets which cause congestion and a potential public hazard. In this way, cities would be leasing space in their conduits, which is consistent with their rights as municipal utilities or telecommunication carriers.

Second, the Act clearly contemplates that interconnection for telecommunications services be implemented through a coordinated planning process.<sup>196</sup> Establishing a process through city ordinance would effect the purpose to minimize redundancy, maximize planning and coordination, and facilitate interconnectivity. Third, as long as the rates were competitively neutral, nondiscriminatory, reasonable, and did not prohibit any telecommunications carrier from entering the market, there likely would be no basis for state or federal preemption.

Finally, the LECs and cable companies still would be able to utilize their existing conduits for internal expansion, or lease space on their poles and conduits to third parties until they reach capacity. As new providers would have a choice in who to lease capacity from, this approach would not likely be construed as anticompetitive.<sup>197</sup>

Cities could also consider imposing utility user taxes on users of utility services which include public utilities, cable and telephone companies, and arguably telecommunications carriers.<sup>198</sup> The City of Sunnyvale imposes a utility-user tax of two percent on all utilities, including PG&E and Pacific Bell.<sup>199</sup> In many instances, utilities collect the tax from users to give to the state. States then distribute to cities on a proportional basis. Such taxes are authorized generally by federal statute<sup>200</sup> but also must be specifically author-

195. Section 62.0105(c) provides:

A permittee shall notify all public utilities of his request to construct improvements or encroachments with the rights-of-way and shall coordinate with the public utilities in order that any necessary relocations of existing facilities may be done in an orderly fashion without interrupting the continuity of service or endangering life or property.

SAN DIEGO MUNICIPAL CODE § 62.0105(c).

196. Section 256(a)(1) of the Act established procedures used when there is an oversight by the Commission regarding coordinated network planning and design by telecommunications carriers and other providers for interconnectivity. Telecommunications Act § 256(a)(1).

197. See, e.g., Jerry L. Beane, *Antitrust*, 25 TEX. TECH L. REV. 453, 458 (1994).

198. The City of Sunnyvale imposes the utility user tax on alternative access providers. Sunnyvale Telecommunications Policy, *supra* note 6, at 12.

199. *Id.*

200. The Internal Revenue Code permits the imposition of a 3% tax on local telephone service, toll, and teletype service. I.R.C. § 4223 (1997). This tax does not apply to private

ized in each state's constitution and under city charter or authority.<sup>201</sup> Utility user taxes are not specifically addressed by the Act.

It is important to note that while such taxes may not be viewed as a market barrier, taxes generally are perceived by industries as disincentives to economic development in an area. San Diego, for example, uses the fact that it does not impose user taxes as an attraction for new businesses to the area. Consequently, imposing a utility user tax is recommended only as a last alternative and where there are other incentives that can offset any adverse perception.

## VI. CONCLUSION

There is no question that RTNs will be developed and that cities will play critical roles. The exact nature of that role will undoubtedly depend upon a variety of factors. Chief among them will be a city's existing resources, such as whether it owns its own utility; the level of risk it is willing to assume; and the level of interest from existing and new providers to form strategic partnerships. It is this author's opinion that cities should focus attention on developing strategic partnerships among themselves and other institutional users which can be leveraged in negotiating favorable terms from existing providers. In many ways the uncertainty associated with technology may warrant that cities use a combination of technologies until network systems become ubiquitous. It is likely that the revenue generator for cities will be applications and services it chooses to provide, rather than revenue from owning the pipeline. What is important is that cities move forward in some direction now. The information highway is being built, and cities need to have access to some infrastructure that enables them to compete on it.

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systems or enhanced services, defined as communication services furnished to a subscriber that gives subscriber exclusive or priority use of channel or to intercommunication systems for the subscriber's station regardless of whether connected through switching network. *Id.*

201. See Johnson, *supra* note 8, at 521-22. Taxes should be distinguished from fees in that taxes are a public burden imposed on citizens for government purposes without reference to particular individual or property. They are generally imposed to raise money for the government. An assessment or fee is imposed for improvements and is beneficial to particular individual and imposed in relation to benefit. See also *Fenton v. City of Delano*, 208 Cal. Rptr. 486 (Cal. Ct. App. 1984).