ORIGINAL

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Investigation into Pricing of Unbundled Network Elements	)))	Docket No. 990649-TP

DIRECT TESTIMONY OF

DENNIS B. TRIMBLE

ON BEHALF OF

GTE FLORIDA INCORPORATED

SUBJECT:

POLICY

AUGUST 11, 1999

GTE FLORIDA INCORPORATED

DIRECT TESTIMONY OF DENNIS B. TRIMB.E

DOCKET NO. 990649-TP

Q. PLEASE STATE YOUR NAME, POSITION, AND BUSINESS ADDRESS.

A. My name is Dennis B. Trimble, and I am the Assistant Vice President - Pricing Strategy for GTE Services Corporation. My business address is 600 Hidden Ridge Drive, Irving, Texas.

Q. PLEASE SUMMARIZE YOUR EDUCATION AND WORK EXPERIENCE.

A. I received a B.A. in Business in 1970 and an M.B.A. in 1973, both from Washington State University. In 1972, I became an Assistant Professor at the University of Idaho, where I taught undergraduate courses in statistics, operations research, and decision theory. From 1973 through 1976, I completed course work towards a Ph.D. degree in Business at the University of Washington, majoring in quantitative methods with minors in computer science, research methods, and economics. I began my career with GTE in 1976 as an Administrator of Pricing Research with General Telephone Company of the Northwest. Through 1985, I held various jobs with GTE Northwest and GTE Service Corporation, in the areas of demand analysis, market research, and strategic planning. In 1985, I was named Director of Market Planning for GTE Florida, Incorporated, and in

1987 I became GTE Florida's Director of Network Services Management. During most of 1988 and early 1989, I was also Acting Vice President of Marketing for GTE Florida. From 1989 through most of 1994, I was employed by GTE Telephone Operations as Director of Demand Analysis and Forecasting. In October 1994, I became Director of Pricing and Tariffs for GTE Telephone Operations and assumed the additional responsibilities of the Assistant Vice President of Marketing Services position, on an acting basis, in August 1995. My formal placement as Assistant Vice President of Marketing Services occurred in August 1996. I assumed my current position as Assistant Vice President of Pricing Strategy in February 1998.

Q. HAVE YOU PREVIOUSLY TESTIFIED ON BEHALF OF GTE?

A. Yes. I have presented testimony on behalf of GTE before various state commissions, including commissions in Alabama, California, Florida, Hawaii, Indiana, South Carolina, Texas, and Virginia.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. My testimony sets forth GTE's responses to Issues 1(a)-(g), 2, and 3(b)-(e). These issues center upon the public policy implications of deaveraging unbundled network element (UNE) prices. My testimony explains that UNE prices cannot be deaveraged in a vacuum, because they are inextricably linked to retail prices and universal service support.

Q. IS THIS PROCEEDING AFFECTED BY ANY FEDERAL PROCEEDINGS?

A. Yes, this proceeding is affected by two separate but related federal proceedings resulting from the United States Supreme Court's decision in *AT&T v. Iowa Utilities Board*, 119 S. Ct. 721 (1999). There, the Supreme Court held, among other things, that: (1) the Federal Communications Commission (FCC) has the authority to establish pricing guidelines for UNEs, although the Court did not address the merits of the FCC's total element long run incremental (TELRIC) pricing rules; (2) the FCC's list of network elements that incumbent local exchange carriers (ILECs) are required to unbundle is invalid because the FCC failed to apply the Act's necessary and impair test in developing its list; and (3) assuming ILECs are required to provide UNEs, they may not disassemble UNEs that are already combined.

As a result of the Court's decision, the Eighth Circuit must determine whether the FCC's TELRIC pricing rule is consistent with the Act, and the FCC must develop a new list of UNEs that satisfies the Act's necessary and impair test. Both these proceedings are underway. Their results will almost certainly affect this Commission's rulings here on unbundling requirements and the standards for conducting UNE cost studies.

For example, in Issue 1(a) the Commission asks, "Which UNEs

should be deaveraged?" The answer to this question depends, in part, on the outcome of the FCC's necessary and impair proceeding (CC Docket 96-98), because it is impossible to determine which UNEs should be deaveraged before knowing which UNEs must be offered in the first instance. In the FCC's proceeding, GTE submitted detailed analyses of the business and network element deployment strategies of facilities-based competitive local exchange carriers (CLECs). GTE's basic premise is that where CLECs already are self-supplying network elements, there is no economic or legal rationale for requiring carriers to unbundle their facilities.

GTE's real-world evidence proving the widespread availability of substitute elements used by CLECs in the market today supports the following conclusions about the appropriate level of network unbundling:

Switching, Operator Services /DirectoryAssistance (OS/DA), Signaling, and Network Interface Devices (NIDs): These elements should not be subject to unbundling. CLECs have demonstrated an ability to deploy fully scalable switches in markets of all sizes throughout the country, including Florida. OS/DA, signaling, and NIDs are available from competitive providers on a national basis.

Interoffice Transport: ILECs should not be required to unbundle transport to or from wire centers that serve 15,000 or more lines. In

GTE's service territories, wire centers of this size have the greatest incidence of collocation, and collocation correlates almost perfectly with the use of alternatives to unbundled ILEC transport by CLECs. In Florida, 41 of GTE's 57 offices that serve 15,000 or more lines have existing and/or in progress CLEC collocations.

Loops: ILECs should not be required to unbundle local loops used to serve business customers with 20 or more access lines or multiple dwelling unit complexes. Numerous CLECs are successfully serving these customers with their own loop facilities. Nor should ILECs be required to unbundle loops serving new residential or commercial developments that are installed after the effective date of the rules adopted in the federal UNE remand proceeding. ILECs have no advantage over CLECs in deploying such new facilities.

Operations Support Systems (OSS): I understand that OSS issues are not within the scope of this proceeding, but are instead the subject of ongoing workshops. Nevertheless, for the record, GTE has told the FCC that the ILECs should be required to unbundle OSS only where CLECs use the OSS in conjunction with another service or element of the ILEC.

Additional Network Elements: There is no basis for requiring unbundling of additional elements as some CLECs have proposed. Some of these network items, such as inside wiring and dark fiber,

are not network elements, and all of them are widely available in the marketplace from alternative sources and therefore do not meet the impair test.

GTE's positions on this issue are set forth in greater detail in its comments filed with the FCC. (*See* Comments of GTE Service Corporation and its Affiliated Domestic Telephone Operating Companies in Response to Second Further Notice of Proposed Rulemaking, CC Docket No. 96-98 (May 26, 1999)). Given this, GTE believes that only transport and local loops should be unbundled, and only under the conditions described above. But since the FCC proceeding is still pending, I shall respond to the Commission's questions using examples from the FCC's original list of seven UNEs: (1) local loops; (2) NIDs; (3) switching capability; (4) interoffice transmission facilities; (5) signaling networks and call-related databases; (6) OSS functions; and (7) operator services and directory assistance. Again, the important consideration here is not the makeup of the final UNE list, but rather the general deaveraging principles I set forth.

Q. ARE THERE OTHER FEDERAL RULINGS THAT AFFECT THIS PROCEEDING?

A. Yes. On July 30, 1999, the Fifth Circuit Court issued its decision on the FCC's universal service order. The Court's decision reinforces a point that GTE has long emphasized: implicit supports in ILEC rates

violate the Act and must be eliminated. Specifically, the Fifth Circuit wrote that:

> We are convinced that the plain language of Section 254(e) does not permit the FCC to maintain *any* implicit subsidies for universal service support. Therefore, we will not afford the FCC any *Chevron* step-two deference in light of this unambiguous Congressional intent. Because the agency continues to require implicit subsidies for ILEC's in violation of a plain, direct statutory command, we reverse its decision to require ILEC's to recover universal service contributions from their interstate access charges.

Texas Office of Public Utility Counsel v. FCC, Case No. 97-60421.

As the Court has affirmed, eliminating implicit support is an absolute prerequisite to implementing Congress's plan to create rational and efficient local service competition throughout the nation. For such competition to develop, this mandate must be applied at both state and federal levels. Thus, implicit subsidies – including subsidies resulting from rate averaging – must be removed from retail rates, and such deaveraging must be consistent with the deaveraging of UNE rates.

Q. ASSUMING, AS YOU RECOMMEND, THAT RETAIL AND WHOLESALE RATES ARE SIMULTANEOUSLY DEAVERAGED,

THEN WHAT CRITERIA SHOULD GOVERN UNE DEAVERAGING?

A. Assuming a comprehensive plan to rebalance both retail and wholesale rates, then the appropriate basis for deaveraging is cost. This point bears particular emphasis: the deaveraging criteria I recommend here are appropriate only if existing, implicit universal service support is removed from retail rates.

Given the above conditions, the price for a particular UNE should be deaveraged where (1) the cost of providing the UNE varies based upon geography, and (2) this geographic difference in cost is large enough to warrant a deaveraged price.

For example, loop costs -- and thus the costs of basic local service -- vary greatly by geography. Generally, due to differences in customer density and switch locations, loop costs tend to exhibit large variations between rural and urban areas. In contrast, the cost of OSS functions does not vary much, if at all, by geography. Accordingly, the prices for unbundled loops should be deaveraged, but there is no support at this time for deaveraging other network elements, such as OSS.

Q. IS IT POSSIBLE FOR THE COMMISSION IN THIS PHASE TO MAKE FINAL DECISIONS ABOUT WHICH UNES SHOULD BE DEAVERAGED IN THE ABSENCE OF APPROPRIATE COST STUDIES?

A. A *final* decision cannot be made in the absence of appropriate cost

studies. Nevertheless, the Commission can, in this first phase, establish the fundamental criteria for deaveraging. Two of those criteria are set forth in my previous answer.

Also, the Commission can make at this time some tentative conclusions about which UNEs can be deaveraged. My testimony, for example, provides guidance based on my knowledge of prior internal Florida cost data. While the numbers I use to illustrate my points are not necessarily those that would be submitted in the Phase II studies, it is possible to use existing data in a relative sense to draw some preliminary conclusions about which UNEs should be deaveraged and on what basis.

Q. WHAT IS YOUR TENTATIVE CONCLUSION AS TO WHICH UNES SHOULD BE DEAVERAGED? (Issue 1(a))

A. Based on my review of the existing data, it appears that in Florida, only unbundled loops exhibit the cost and market characteristics for which geographic price deaveraging would be appropriate.

Q. ASSUMING THAT ILECS MUST UNBUNDLE SWITCHING AND INTEROFFICE TRANSMISSION FACILITIES, WHY DOES GTE BELIEVE THEIR PRICES SHOULD NOT BE DEAVERAGED?

A. Although switching costs do vary based upon size of switch and traffic volumes, the traffic sensitive cost levels (which appear to vary between wire centers from $0.003 to $0.006 per minute of use) are

not likely to result in any significant social gains due to price deaveraging. In other words, the end-user rates derived from these levels of costs are not likely to exhibit any significant degree of variation and thus are not likely to have any material impact on the demand for usage-related services. Likewise, the absolute variation in port costs from wire center to wire center (which tends to be about a dollar) does not appear to suggest any great need for deaveraged price structures at this time.

Additionally, interoffice transmission facility prices reflect distance considerations as well as traffic and volume considerations, and thus already reflect a deaveraged price structure.

Q. WHICH UNE COMBINATIONS, IF ANY, SHOULD BE DEAVERAGED? (Issue 1(b))

A. In general, if it is appropriate for a single element to have a stand-alone deaveraged rate, then any UNE combination that includes the same element should reflect its deaveraged rate in a consistent fashion. For example, since it is appropriate to deaverage loop costs, any UNE combination that includes unbundled loops should also be deaveraged.

Q. WHAT IS THE APPROPRIATE BASIS FOR DEAVERAGING UNES? (Issue 1(c))

A. Here again, the appropriate basis for deaveraging UNEs depends

upon (1) the extent to which each UNE's cost varies within a geographic area, and (2) whether this cost difference is large enough to warrant a deaveraged price. This analysis is necessarily an empirical one that must balance any consumer welfare gains generated by deaveraged prices with the administrative costs involved in developing and offering such prices.

As a general rule, GTE believes that UNE loops should be deaveraged on a wire center basis or lower. I propose this general rule based on my analysis of GTE's loop cost studies, which show that significant differences exist in loop costs between and even within various GTE wire center locations. These differences are illustrated in Tables 1 and 2, attached as Exhibits DBT-1 and DBT-2, respectively.

Table 1 shows the cost differences *between* different wire centers. Specifically, this Table shows that the average Total Element Long Run Cost (TELRIC) estimate for an unbundled loop varies between the groups from a low of $14.37 to a high of $82.25, depending on the group of wire centers.

Table 2 shows the dramatic cost differences that exist *within* a wire center. Specifically, Table 2 presents cost data for three different wire centers. This Table shows that the costs of a loop with the "core area" of a wire center (i.e., the area within approximately 12 kilo-feet

of the central office) are dramatically different from the costs of a loop within the same wire center but outside the core area. For example, in the Frostproof exchange, the cost of a loop is about $23 inside the core area, but the cost of a loop outside the core area (but still within the Frostproof wire center) is more than $65. This is a significant variation in cost, and companies must be allowed to reflect this variation in both their wholesale and retail prices.

My preliminary analysis of the cost variance inherent in unbundled loops, which is based on my review of GTE's earlier cost studies, is supported by this Commission's Report to the Legislature on the Costs of Providing Basic Local Telecommunications Service (February 1999). There, the Commission noted that costs vary greatly by wire center and even *within* certain wire centers:

> As reflected in the wire center cost results in Appendix B, urban versus rural cost differences can be quite dramatic, with urban average monthly costs per access line typically in the $15-$20 range, while rural average monthly costs per access line can be in the hundreds of dollars. (In fact, cost can vary significantly within a wire center.) However, incumbent LECs' existing prices for residential and business exchange access services were set on value of service principles, not based on the cost to serve. . . .

(FPSC Report, Overview Section, at page 27.)

Once again, the cost studies GTE will submit in Phase II of this proceeding will provide additional evidence to help determine the basis upon which UNEs should be deaveraged. At this point, however, GTE proposes that all UNE providers be allowed to deaverage their loop rates at least on a wire center basis, and on a smaller basis if significant cost and density variation exist within the wire center.

Q. SHOULD LOOP LENGTH, BY ITSELF, DETERMINE DEAVERAGED RATE STRUCTURES FOR UNBUNDLED LOOPS?

A. No. Loop length will not justify rate deaveraging unless it is accompanied by significant differences in customer density within the wire center's serving area. This condition is more likely to exist in rural wire center areas such as those presented in Table 2, which I will replicate as Table 3 (attached as Exhibit DBT-3) with the added entry of some urban GTE wire centers for comparative purposes.

The differences between the core versus non-core loop costs for the urban wire centers of Tampa Main, Hyde Park, and University are in the $6 to $8 range, whereas the differences between core and non-core costs for rural wire centers is much greater, e.g., $30-$40. Compared with the $30 to $40 differences within the rural wire centers, urban wire centers appear to be much more homogeneous in density throughout the core and non-core areas of the wire center.

Thus, deaveraging the urban wire centers below the wire center level – at least initially – does not appear to be warranted.

In sum, the extent to which rates are deaveraged should be driven by the cost characteristics of the element or service in question. At this time, GTE does not see a need to deaverage the rates of any UNE other than loops. Also, the Commission must consider operational issues, e.g., order entry and billing capabilities, in determining the level to which rates must be deaveraged. In this regard, intra-wire-center unbundling should not be mandatory, but rather permissible, since the cost of developing administrative capabilities to offer deavearaged rates at this level may substantially exceed any benefits to consumers.

Q. DO YOU RECOMMEND SEPARATE RATE LEVELS FOR UNBUNDLED LOOPS FOR EACH OF AN ILEC'S WIRE CENTERS?

A. Again, this is an empirical question that can only be answered through a review of loop costs between (and within) wire centers. For example, Table 1 shows that many wire centers may exhibit similar cost characteristics such that it would be reasonable to establish UNE "zones" or "rate groups" for pricing purposes. All wire centers and sub-segments of wire centers in the same zone would bear identical UNE rates that are justified based on the homogeneity of the average cost characteristics (and thus homogeneity of cost-derived rate levels). In the next phase of these proceedings, the Commission

should attempt to map each wire center and any appropriate sub-segments of wire centers to specific UNE rate groups for pricing purposes. The development of the characteristics of each rate group should be based on the degree of price variation (which is driven by cost variation) within an established UNE rate group that the company believes is rational for pricing in its market area.

Q. AT THIS TIME, PRIOR TO APPROVED UNE COSTS FOR DEAVERAGING PURPOSES, WHAT LEVEL OF DEAVERAGED RATES WOULD GTE PROPOSE FOR UNE LOOPS?

A. As a starting point, we would propose to deaverage UNE loop rates into separate rate groups that encompass a $5 range in wire center specific cost-based price determinations. GTE believes $5 is a significant variation in cost.

For example, Table 1 shows that GTE has 11 separate zones where the TELRICs of UNE loops vary by at least $5. This Table, however, reflects only the TELRICs of the UNE loops, not loop *rates*. As I explain later in my testimony, the rate for a loop must equal TELRIC plus a reasonable share of joint and common costs, and such rates must reflect GTE's actual costs. We would expect that loop rates would vary by $5 or more in the 11 zones shown in Table 1, and therefore we would propose deaveraged rates in these 11 zones. In other words, if Table 1 depicted the *rates* derived from approved wire center level costs instead of just the TELRICs, then Table 1 would

represent GTE's proposed deaveraged rate structure for UNE loops.

Q. WILL GTE BE PROPOSING ANY SUB-WIRE CENTER LOOP PRICE DEAVERAGING?

A. At this time, without knowledge of Commission-approved TELRICs, GTE cannot recommend any sub-wire center deaveraging for unbundled loop rates. As my examples in Table 3 suggest, however, there may ultimately be areas where sub-wire center deaveraging is appropriate.

Q. SHOULD THE DEGREE OF DEAVERAGING BE UNIFORM FOR ALL UNES? (Issue 1(d))

A. No. As explained above, loop costs and the costs of providing basic service can vary significantly by wire center and even within particular wire centers. More efficient local competition will be stimulated and consumer welfare will be improved by deaveraging UNE loop prices and basic service rates commensurately such that they give appropriate recognition of the marked cost variation. By contrast, the cost of OSS functions is not likely to vary geographically. For this reason, the Commission should not adopt a "one size fits all UNEs" approach to deaveraging.

Q. SHOULD THE DEGREE OF DEAVERAGING BE UNIFORM FOR ALL AFFECTED ILECS FOR WHICH DEAVERAGED RATES ARE APPROPRIATE? (Issue 1(e))

A. No, for the obvious reason that each ILEC's market area will exhibit differing degrees of variation in terms of cost levels and market characteristics. The FPSC Report discussed earlier in my testimony supports GTE's contention. The tables in Chapter II of the Report illustrate the significant cost and price differences among the various ILECs operating in Florida. These cost differences reflect the different characteristics of each ILEC's service territory. Here again, a 'one size fits all' approach is inappropriate. The Commission should only establish general guidelines that will facilitate the approval process for proposed deaveraged rate structures.

Q. WHAT TYPE OF GENERAL GUIDELINES SHOULD THE COMMISSION ESTABLISH REGARDING DEAVERAGED RATE STRUCTURES FOR UNES?

A. At the end of this Phase I, the Commission should establish guidelines that promote deaveraged UNE rates reflecting the following characteristics:

(1) they are based on variations in the underlying costs to provide the specific UNE;

(2) they include a reasonable allocation of common cost recovery;

(3) they are consistent with retail rate structures and levels (i.e., eliminate the uneconomic

arbitrage of the ILECs' rate structures);

(4) they provide the incentive for efficient competitive entry into all geographic markets for all customer sets;

(5) they allow the ILEC an opportunity to recover its actual costs; and

(6) they are computed at a wire center or smaller basis, but may be mapped into rate groups or zones based on company determined price ranges.

Finally, as I pointed out earlier, any decision regarding rate deaveraging must weigh the operational costs of deaveraging against the potential consumer gains. GTE proposes that each ILEC submit in Phase II a specific proposal for deaveraging particular UNEs that reflects the above guidelines.

Q. WHAT OTHER FACTORS OR POLICY CONSIDERATIONS, IF ANY, SHOULD BE CONSIDERED IN DETERMINING DEAVERAGED UNE RATES? (Issue 1(f))

A. UNE rates cannot be deaveraged in a vacuum. The deaveraging guidelines I have set forth in this testimony depend on the removal of

implicit supports from retail rates. Deaveraged UNE rates must be established at the same time, and to the same extent, that retail rates and universal service supports are deaveraged.

The FCC recognized this principle when it voluntarily stayed its UNE deaveraging rule (Rule 51.507(f)). This rule requires state commissions to establish different rates for UNEs in at least three defined geographic areas. After the Supreme Court's decision in *AT&T v. Iowa Utilities Board*, the FCC issued an order staying the effect of its deaveraging rule until six months after the FCC issues a final order in its Universal Service Docket, CC Docket No. 96-45, the purpose of which is to implement high-cost universal service support for non-rural LECs under section 254 of the Act.

The FCC reasoned that a stay was required to afford the states and the FCC "the opportunity to consider in a coordinated manner the deaveraging issues that are arising in a variety of contexts" affecting local competition:

> By linking the duration of the stay to the universal service proceeding, we afford the states and ourselves the opportunity to consider in a coordinated manner the deaveraging issues that are arising in a variety of contexts affecting local competition. We are considering in the universal service proceeding what level of geographic deaveraging to use in determining

the universal service support available to non-rural LECs serving high-cost areas. States are confronting similar issues. In addition, in the access charge reform proceeding, we are continuing to assess the application of deaveraging policies to the interstate access rates of incumbent LECs. ***Applying different standards for, or degrees of, geographic deaveraging in different contexts might create arbitrage opportunities or distort entry incentives for new competitors.*** Temporarily staying the effectiveness of section 51.507(f) will afford regulators the opportunity to consider the ramifications of deaveraging for the pricing of unbundled network elements, for universal service support in high-cost areas, and for interstate access services.

Finally, we recognize the possibility that the three-zone rule may not be appropriate in all states. In some states, for instance, it may be that local circumstances dictate the establishment of only two deaveraged rate zones. We intend to address such situations on a case-by-case basis. States may file waiver requests with the Commission seeking relief from the general rule in light of their particular facts and circumstances.

(*Stay Order*, CC Docket No. 96-98 (May 7, 1999) (emphasis added)).

GTE agrees that the deaveraging of UNEs is necessarily linked to universal service support and the promotion of efficient competition. In fact, deaveraging UNEs without removing implicit support from retail rates is the worst possible approach the Commission could pursue in this docket, because it exacerbates the cream-skimming or arbitrage problem that exists today.

Q. IS THIS PROBLEM PRESENT IN FLORIDA?

A. Yes. Even in the absence of deaveraged UNEs, GTE's competitors are exploiting arbitrage opportunities. Attached to my testimony as Exhibit DBT-4 is an excerpt from GTE's comments filed in the FCC's necessary and impair proceeding, CC Docket No. 96-98. It demonstrates that CLECs are building facilities rapidly in GTE's highest-density exchanges, such as Tampa, and are cream-skimming GTE's high-value customers. The public policy dilemma is that CLECs are, in essence, engaged in "deaveraged" facilities-based competition – they are not required to serve high-cost customers in high-cost areas, and therefore they selectively target GTE's low-cost, high-value customers in GTE's more dense exchanges. GTE must be able to respond to this cream-skimming by deaveraging its retail prices, either directly through retail rates or through an explicit universal service mechanism.

Q. WILL THE HARMFUL EFFECTS OF TELRIC PRICING BECOME MORE PRONOUNCED IF UNE RATES ARE DEAVERAGED IN THE ABSENCE OF RETAIL RATE DEAVERAGING?

A. Most certainly. Deaveraging UNE prices based solely on TELRICs without deaveraging retail prices would allow entrants an even greater opportunity to cream-skim those customers currently providing universal service support, while ensuring the ILEC would remain the single source of supply to customers located in high-cost areas who currently receive implicit support. This approach would only exacerbate productive inefficiencies by enabling less efficient firms to underprice incumbent suppliers whose rates are burdened with implicit support. In his Direct Testimony, GTE witness Michael Doane illustrates the arbitrage opportunities that would result if UNE prices were deaveraged on the basis of TELRICs only, without any regard to the existing, retail rate structure. His analysis underscores the need for this Commission to follow my recommendation and the FCC's approach of addressing UNE deaveraging, universal service support, and competitively neutral pricing policies simultaneously and on a consistent basis. In the absence of this comprehensive approach, the Commission can expect to see even greater CLEC "redlining" of high-cost segments through uneconomic facilities bypass in GTE's high-value exchanges.

Q. DOES GTE HAVE A SPECIFIC PROPOSAL FOR THE COMMISSION TO CONSIDER?

A. Yes. GTE has three alternative proposals:

The best approach to ensuring competitive neutrality would be for the Commission to calculate a consistent set of deaveraged UNE and retail prices for each ILEC in Phase II of this proceeding. If the resulting retail prices for services that fall within the definition of universal service are deemed to be "unaffordable" or unacceptable, then the Commission should advocate the establishment of a fully sufficient, explicit, and *portable* universal service support mechanism.

Let me illustrate this point with a simple example. Suppose a UNE combination that can replicate either a residential or business service is priced at $50 per month for a given geographical area. Suppose further that the ILEC's current price for business service in that area is $85, and that the ILEC's current price for residential service is capped at $15. In this scenario, competitors will purchase UNE combinations to cream-skim the ILEC's business customers and will not bother to compete for residential customers. But notice what happens if the Commission establishes an explicit, portable universal service mechanism and allows the ILEC to adjust its retail prices: (1) the ILEC's business rate will decrease to around $50 (plus any retailing expenses); (2) the residential rate will remain the same; and (3) there is now $35 in portable support for each residential line. Under this scenario, efficient competition will flourish, and competitors will be encouraged to compete for residential customers.

As a second-best approach, if the Commission believes it does not have the time or the statutory authority to take the steps outlined above, then GTE proposes that the Commission seek a waiver from the FCC's deaveraging rule until the Commission can address all relevant issues simultaneously. This proposal does nothing, however, to eliminate the problem of the facilities-based redlining discussed above or to correct market price signals for competition in the interim.

Finally, if the Commission wishes to go ahead with UNE deaveraging despite the absence of an explicit universal service fund or retail rate rebalancing, GTE recommends implementation an approach that properly considers existing retail rate structures. This solution, a competitively neutral "deaveraging adjustment charge" (DAC), is discussed in Mr. Doane's Direct Testimony, but I can summarize it here using my earlier example. In that example, the price of a UNE combination that can replicate a residential or business service equals $50 per month for a given geographical area, and the ILEC's current prices for residential and business services are $15 and $85, respectively. Under the DAC proposal, if a CLEC purchases a UNE combination to serve a residential customer, GTE will pay (or credit) the CLEC a monthly charge of $35. In this way, a CLEC that is as efficient as GTE can purchase the UNE combination for $50 but still provide residential service for only $15. The CLEC can now compete "head on" with GTE for residential service. Conversely, if a CLEC purchases the UNE combination to provide service to a business

customer, the CLEC would pay GTE a monthly DAC of $35.

The DAC, as its name suggests, would be developed on a deaveraged basis. For example, the prices of UNE combinations, business services, and residential services are likely to vary significantly by wire center. Multiple DACs would be calculated on a deaveraged basis, (one each for business loops and residential loops for each UNE rate group), to capture these differences. It should be stressed that the DAC mechanism would necessarily be structured such that if all of an ILEC's customers were served via UNE-provisioned elements, the positive DAC payments and the negative DAC credits would exactly offset each other such that the net DAC payment to the ILEC would be zero.

Q. WHAT ARE THE BENEFITS OF THE DAC APPROACH?

A. The implementation of a DAC proposal, in the absence of a sufficient and competitively neutral universal service program, has many attributes that promote ubiquitous and socially beneficial competition such as:

(1) Provides economic incentives for CLECs to compete for all customer sets in all areas.

(2) Is a step towards creating a marketplace that is governed by principles of competitive neutrality; that is, all firms have an opportunity to compete based on

their particular efficiencies and capabilities.

(3) Recognizes the disorientation in ILECs' retail rates that have been used to support social programs, and creates a rational alignment between UNE rates and retail rates, which is a necessary condition for the maintenance of universal service objectives and the development of an efficient competitive marketplace.

(4) Allows ILECs an opportunity to recover their actual costs of providing telecommunication services.

This proposal is not perfect. Unless the DAC is imposed upon (and credited to) facilities-based carriers, such carriers will continue to cream-skim low-cost, high-value customers and will continue to ignore residential customers, especially customers in low-density exchanges. But this proposal at least mitigates the deleterious effects of deaveraged UNE pricing in the absence of retail rate rebalancing or universal service reform.

Q. WHAT SUPPORTING DATA OR DOCUMENTATION SHOULD AN ILEC PROVIDE WITH ITS DEAVERAGING FILING? (Issue 1(g))

A. Assuming the Commission accepts GTE's position that UNE and retail rates must be simultaneously deaveraged, an ILEC should provide TELRIC and TSLRIC studies for all affected UNEs and retail services.

These studies, however, provide only estimates of long-run incremental costs; they do not produce prices that reflect an ILEC's total actual costs. Therefore, ILECs should also submit a set of proposed prices for UNEs and retail services based on the following formula:

Price = TELRIC (or TSLRIC) plus x, where x is a reasonable share of joint and common costs

The sum of the proposed prices for retail services must provide a reasonable opportunity to recover the ILEC's actual costs; thus, the sum of the proposed prices for UNEs should also equal the ILEC's actual costs (less any avoided retailing expenses). Moreover, the proposed price for a particular retail service should be commensurate with the proposed price for a UNE combination that replicates that retail service. The ILEC should submit evidence that shows these retail and wholesale cost and price relationships.

In addition, the ILECs should provide documentation describing the rationale and methods employed to ascertain the level of geographic and/or customer set rate deaveraging appropriate for their respective companies.

Q. HOW CAN ONE DETERMINE WHICH UNES A LEC "CURRENTLY COMBINES" (51.315(B)) VERSUS THOSE WHICH ARE "NOT

ORDINARILY COMBINED IN THE ILEC'S NETWORK" (51.315(C))? (Issue 2)

A. This is an issue of fact. As stated by the FCC, the purpose of Rule 51.315(b) is to prevent ILECs from disconnecting previously connected elements, over the objection of the requesting carrier, "not for any productive reason, but just to impose wasteful reconnection costs on new entrants," *AT&T v. Iowa Utilities Board.* Given this, GTE proposes the following test: When a CLEC requests a UNE combination, the ILEC must provide that combination unless the ILEC would be required to connect one or more UNEs to fulfill the CLEC's order. Put another way, when a CLEC orders a UNE combination the ILEC may not disconnect elements that are already combined unless a "productive reason" exists.

Again, this is a fact-specific question that cannot be answered in a vacuum, but an example may help illustrate our point. Suppose a CLEC orders a UNE combination necessary to provide "as is" service to Customer X. In this instance, the UNEs needed to serve Customer X are already in place and are already combined by the ILEC; therefore, the ILEC would be required to provide the requested UNE combination. Of course, such combinations or "as is transfers" are nothing more than resale, and in the absence of rate rebalancing or universal service reform such combination will make it easier for CLECs to cream-skim implicit supports.

Q. FOR WHICH UNES SHOULD THE ILECS SUBMIT COST STUDIES SUFFICIENT TO DEAVERAGE THOSE UNES IDENTIFIED IN ISSUES 1(A) AND (B)? (Issue 3(b))

A. Market data from GTE's serving area in Florida show that the company's unbundling obligation should not extend beyond loops and interoffice transport under the conditions I described earlier. Because interoffice transmission facility prices are already essentially deaveraged, only deaveraged cost studies for loops (and combinations using those loops) would be necessary. The cost support should reflect deaveraging at the wire center level.

Q. TO THE EXTENT NOT INCLUDED IN ISSUE 3(B), SHOULD THE ILECS BE REQUIRED TO FILE RECURRING COST STUDIES FOR ANY REMAINING UNES, AND COMBINATIONS THEREOF, IDENTIFIED BY THE FCC IN ITS FORTHCOMING ORDER ON THE RULE 51.319 REMAND? (Issue 3(c))

A. It is difficult to answer this question fully without knowing which UNEs the FCC will identify in its remand proceeding. However, based on the necessary and impair test and the deaveraging criteria I set forth in this testimony, I do not contemplate any need to file studies other than those I have recommended here.

Q. TO THE EXTENT NOT INCLUDED IN ISSUE 3(B), SHOULD THE ILECS BE REQUIRED TO FILE NONRECURRING COST (NRC) STUDIES FOR ANY REMAINING UNES, AND COMBINATIONS

THEREOF, IDENTIFIED BY THE FCC IN ITS FORTHCOMING ORDER ON THE RULE 51.319 REMAND? (Issue 3(d))

A. No. The ILECs should not be required to file nonrecurring cost studies for any individual UNEs or UNE combinations. Most NRCs are affected by OSS wholesale performance measures. The Commission Staff has clarified that OSS issues are not within the scope of this docket. Certainly, the Commission does not intend to establish OSS performance measures here. Without knowing those measures, it is impossible to determine the associated costs.

Q. WHEN SHOULD THE COST STUDIES IDENTIFIED IN ISSUE 3(B), (C), AND (D) BE FILED? (Issue 3(e))

A. Addressing the deaveraging of UNE and retail rates in a coordinated manner will require an extensive set of filings, including TELRICs, TSLRICs, and rate proposals based on GTE's actual costs. GTE would need at least 120 days to compile such a filing

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. The deaveraging of UNE prices should not be undertaken without simultaneous deaveraging of retail prices and universal service support. Without consistency between the wholesale and retail prices, arbitrage and inefficient entry will occur in some local markets, while competition will be foreclosed entirely in others. UNE deaveraging in the absence of retail rebalancing will exacerbate cream-skimming and rate arbitrage that is prevalent even today.

If the Commission believes it does not have the authority to implement a comprehensive deaveraging strategy at this point, it should seek a waiver of the FCC's deaveraging rule until it can address all relevant issues simultaneously. If the Commission instead wishes to proceed with deaveraging now, implementation of a deaveraging adjustment charge will help avoid facilities-based redlining and send correct price signals to the market.

When the Commission does deaverage UNE prices, it should do so only where the geographic variation in the cost of providing a particular UNE is great enough to warrant a deaveraged price. That is, the consumer benefits generated by deaveraging should outweigh the costs of maintaining the deaveraged pricing. Under this criterion, and in view of the Act's necessary and impair test, I believe that in Florida only loops (and any combinations including loops) exhibit the cost and market characteristics that would make deaveraging appropriate. A more definite answer to the unbundling question will be possible only after review of the cost information to be submitted in Phase II.

Q. DOES THIS COMPLETE YOUR DIRECT TESTIMONY?

A. Yes.

TABLE 1 (DBT-1)
WIRE CENTER LOOP COST VARIATIONS

Average UNE Loop Cost (TELRIC)	# of Wire Centers [1]	# of Lines	Percent of Lines	Average UNE Loop TELRIC
$10-14.99	5	116,471	5.43 %	$ 14.37
$15 -19.99	32	1,112,617	51.90 %	$ 17.93
$20 -24.99	24	669,502	31.23 %	$ 21.67
$25-29.99	11	159,442	7.44 %	$ 27.62
$30 -34.99	5	45,699	2.13 %	$ 32.64
$35-39.99	2	9,978	0.47 %	$ 35.58
$40-44.99	3	13,199	0.62 %	$ 42.60
$45-49.99	3	9,334	0.44 %	$ 46.17
$50-54.99	2	3,884	0.18 %	$ 52.47
$55-59.99				
$60-64.99				
$65-69.99				
$70–74.99	1	2,301	0.11 %	$ 74.77
$75-79.99				
$80-84.99	1	1,329	0.06 %	$ 82.25
Total	89	2,143,756	Average =	$20.46

TABLE 2 (DBT-2)
INTRA-WIRE CENTER LOOP COST VARIATIONS

Wire Center	Loop Cost Core Area (a)	Loop Cost Non-Core Area (b)	Difference (c)=(b)-(a)	Average Loop Cost (d)
North Point	$ 19.26	$ 49.63	$ 30.37	$ 34.58
Polk City	$ 22.29	$ 55.39	$ 33.10	$ 42.77
Frostproof	$ 23.58	$ 65.41	$ 41.83	$ 45.15

TABLE 3 (DBT-3)
INTRA-WIRE CENTER LOOP COST VARIATIONS

Wire Center	Loop Cost Core Area (a)	Loop Cost Non-Core Area (b)	Difference (c)=(b)-(a)	Average Loop Cost (d)
North Point	$ 19.26	$ 49.63	$ 30.37	$ 34.58
Polk City	$ 22.29	$ 55.39	$ 33.10	$ 42.77
Frostproof	$ 23.58	$ 65.41	$ 41.83	$ 45.15
Tampa Main	$ 10.71	$ 16.43	$ 5.72	$ 12.45
Hyde Park	$ 13.42	$ 20.98	$ 7.56	$ 15.32
University	$ 11.55	$ 19.71	$ 8.16	$ 13.63

Competitive Network Alternatives In Eight Typical GTE Franchise Areas

Prepared Under the Direction Of

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Chief Technology Officer

PNR & Associates, Inc.,
An INDETEC International Company

August 9, 1999

I. Introduction

Purpose

In support of GTE's comments addressing the standards that should apply for determining which ILEC network elements must be made available under the Telecommunications Act, this report profiles competitive activity--especially from facilities-based carriers--in eight markets that are representative of GTE's myriad franchise areas:

- Dallas/Ft. Worth, TX
- Los Angeles, CA
- Tampa, FL
- Ft. Wayne, IN
- Lexington, KY
- Myrtle Beach, SC
- Oxford Junction, IA
- LaBelle, Ewing, and Lewistown, MO

The objective is to depict and, wherever possible, quantify the extent of CLEC facilities deployment and customer growth in each market.

The report is structured as follows. Section two provides an executive summary of the main findings. Section three presents a "top-down" view of market entrants, their strategies, and capabilities. Section four contains a "bottom-up" view of CLEC entry with numerous maps of CLEC facilities and customers. The appendix lists tables of addressable statistics and listings of CLEC switches.

Scope

The research design incorporates a "top-down" qualitative market analysis with a "bottom-up" quantitative approach. The "top-down" component includes competitive assessments and intelligence on marketing strategies. The "bottom-up" component identifies competitive fiber, switch, and customer locations by CLEC to provide a comprehensive view of the market. Additionally, the addressable market, based on CLEC facility and customer

locations, is quantified. The root analysis is based on PNR's proprietary CLAIMS[tm] process for identifying and quantifying bypass.

This research focuses on CLEC provision of "traditional" voice and data products to business and residential customers. For our purposes, bypass is defined to include business and residential non-GTE provision of telephony via wireline, fixed-wireless, or cable television-based networks. PCS and traditional cellular telephony do not fall within the scope of this research.

Timing

An initial portion of this research specifically on Tampa and Los Angeles was conducted between November 1998 and January 1999. In preparation for the current proceeding, research was expanded to the remaining six market areas in March and April 1999.

Project Focus

This research focuses on the number and distribution of switched access lines, the penetration rates of specific CLECs, the identification of specific customers and points of entry and the estimation of the number of facility based CLEC provisioned lines.

Methodology

For the "top-down" assessment of CLEC targeting and strategy, multiple techniques were employed, including on-site interviews and surveys of publicly available information. Vendors were retained to conduct research for the Tampa, Los Angeles, and Dallas markets.

Specifically, for the Tampa and Los Angeles markets, Markowitz & McNaughton, Inc. ("MMI") conducted interviews with CLEC senior executives (i.e., Vice Presidents, Directors), staff management (i.e., marketing managers, field managers), staff (i.e., technical, customer service), and others whose viability depends on the local access telephony segment of the telecommunications industry. MMI Telecommunications employs interactive conversational research techniques to identify for each CLEC the range of services offered, typical customer profiles, and the extent of bypass activity. The research techniques are designed to elicit cooperative, unbiased responses that provide a view into the activity and mindset of key competitors. For each CLEC, the following specific topics were addressed in the course of the interviews:

- Number of lines (resale, UNE, total bypass)
- Identification and assessment of current facilities
- Types of services offered
- Marketing strategies and targets
- Utilization of excess capacity
- Expansion plans
- Customer mix
- Key competitors

For the Dallas-Ft. Worth area, Quality Strategies, Inc., (QS) provided competitive market analyses based on research through extensive review of publicly available information and selected contact with firms in the Dallas-Fort Worth

area. Information collected externally for these markets has been supplemented by any additional information that GTE and PNR cooperatively were able to glean or infer based on specific research in preparation for this proceeding. For Ft. Wayne, Lexington, and the areas in Iowa and Missouri, all "top-down" information is based entirely on GTE's research or on inferences from the results of PNR's CLAIMS[tm] process.

CLAIMS[tm] Methodology

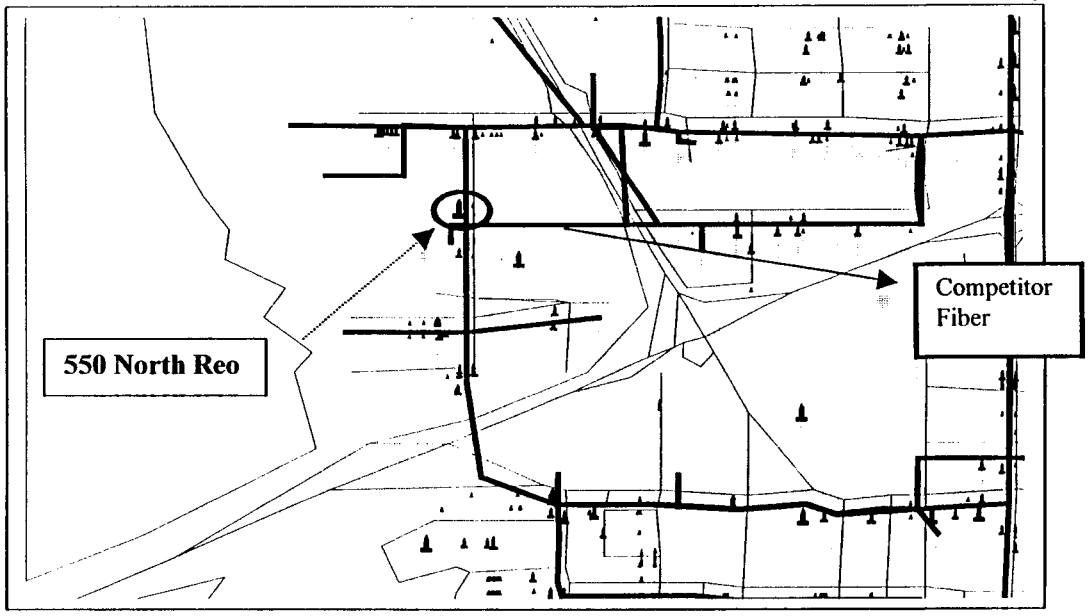
PNR's CLAIMS[tm] process is based on an internal and proprietary process that links site specific information with service provider information. The site specific information includes data obtained from real estate files, reverse directories, public files and business and residential files maintained by other companies. All data used in CLAIMS[tm] is consistently geo-coded and combined into a single location database. This database is the input for PNR's process for constructing a database of geo-coded buildings. In the CLAIMS[tm] analysis, "lines" refers to working telephone numbers.

Competitor information is obtained from extensive surveys of end-users, continuous sampling of selected exchanges, and other proprietary sources. The process includes the estimation of bypass lines by CLEC.

The map displays a MCI Metro customer site at 550 N. Reo Avenue. The size of a building is based on the number of firms in the building and is represented by the size of the building symbol. Building concentration often is a good indicator of prospective CLEC activity. There are numerous buildings around 550 N. Reo that MCI could target easily.

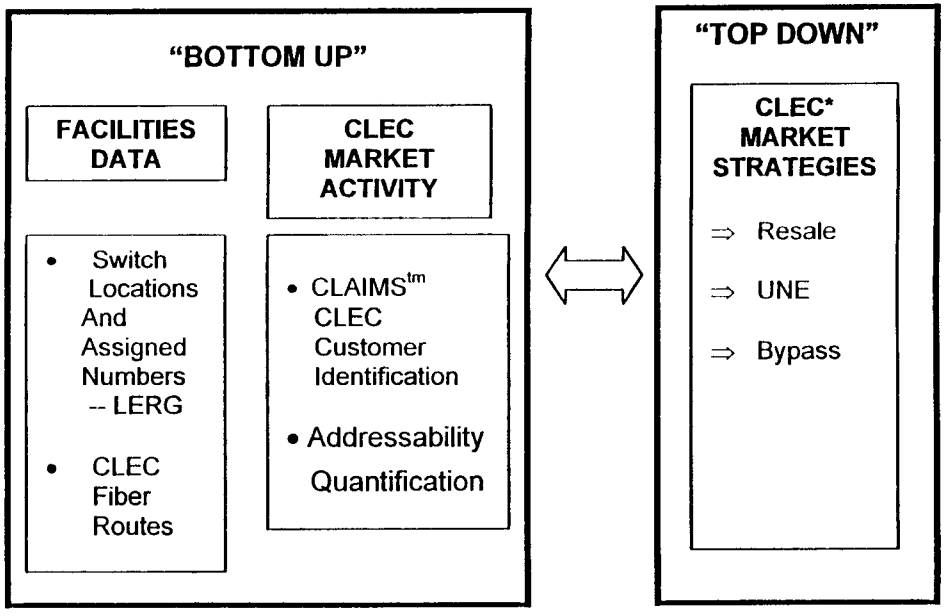
CLAIMS[tm] (Competitor Location Assessment Information Management System)

For the "bottom-up" portion of the analysis, a unique contribution to this research is PNR's CLAIMS[tm] methodology for identifying the location and identity of CLEC customers. Detailed location data is collected for CLEC facilities (switch addresses and fiber routes) and overlaid with a database of known CLEC customers to assess and, wherever possible, quantify current CLEC activity and market addressability by wire center or building cluster. The following CLAIMS[tm] map identifies a building with MCI customers. Competitor fiber is displayed. Other buildings near the same location also are identified.



I. Introduction (continued)

Framework Of Analysis



* Based on primarily on MMI interviews, QS report, and inferences from PNR's analyses.

II. Executive Summary

The close examination of facility based CLECs in eight GTE markets presents a picture of competition that underscores the availability of alternative facilities for supplying local exchange service. In GTE's primary markets of Tampa, Los Angeles and Dallas, there are numerous competitors successfully providing services to both business and residential customers. A similar pattern is true for the secondary markets as well. Based on PNR's CLAIMS[tm] analyses, facility bypass is becoming significant in these markets. There are more than 17 facility based competitors in Los Angeles, 11 in Dallas, 8 in Tampa, 2 in Lexington, and 2 in Ft. Wayne. These competitors include the CLEC arms of Regional Bell Operating Companies, the local arm of IXCs such as AT&T and MCI WorldCom, and multi-market focused CLECs such as ICG, WinStar, Teligent and Level 3.

The investment in switching made by facility based CLECs in these markets is highlighted in the following table:

Market	Lata	Number of Providers	Number of Switches
Los Angeles, CA	730, 734, 973	22	47
Dallas/Ft. Worth TX	552	27	45
Tampa, FL	952	14	20
Fort Wayne, IN	334	2	2
Lexington, KY	466	2	2
Myrtle Beach, SC	432	1	8
Ewing, Labelle, & Lewistown, MO	520, 524	2	3
Oxford Junction, IA	634	2	3
Grand Total		72	130

CLECs have also deployed fiber in many of these markets. For example,

- In Tampa, competitors have deployed 477 miles of fiber within the GTE franchise area. 55.3% of buildings with more than 25 firms are within 1000 feet of competitor fiber. 83% of the buildings are within a radius of 18,000 feet of a competitor switch. Close to 60% of all multi-family buildings are within the 18,000 foot radius.

- In Los Angeles, competitors have deployed over 1,290 miles of fiber within the GTE franchise area. 24.2 % of all buildings are within 1000 feet of competitor fiber. 62.8% of the buildings are within the 18,000 foot radius.

- In Dallas, competitors have deployed 678 miles of fiber in the GTE franchise area. Over 95% of buildings with more than 25 firms in GTE's franchise area are within 1000 feet of competitor fiber. Over 96% of all residential customers are within 1000 feet of competitor fiber.

- In Lexington competitors have deployed 175 miles of fiber in the GTE franchise area. 80% of buildings in Lexington are within 1000 feet of competitor fiber.

- In Myrtle Beach and Iowa, telephone cooperatives have essentially duplicated GTE's existing network. These co-ops have been successful in capturing customers because they can offer essentially the same services at significantly lower rates. These lower rates are possible due to subsidies the co-ops are able to receive.

CLECs have deployed their networks and have concentrated their marketing efforts in areas where there is a high concentration of buildings and businesses. They have also focused on covering those areas where there are larger multi-family structures. Their networks have the potential of readily reaching a significant portion of the market in all areas included in this analysis.

GTE competitors include the CLEC arms of established RBOCs. For example, in Dallas and Los Angeles, CLECs associated with SBC and PacBell, respectively, have become significant competitors to GTE. These CLECs utilize switches associated with their ILEC counterparts in the provisioning and transport of local exchange services. GTE's current largest competitor in their Dallas franchise area is SBC. SBC has entered this market by purchasing UNEs.

II. Executive Summary (continued)

- In the smaller exchanges in Iowa and Missouri, facility-based bypass by the co-ops is fast approaching 100%

- Given the deployment of fiber in Myrtle Beach by the CLEC of the Horry Telephone Company, significant losses due to facility-based bypass are expected.

There is a measurable and growing number of access lines associated with facility-based bypass providers in GTE's major franchise areas. For example, in Tampa, the number of lines attributed to bypass has increased from an estimated 6,600 lines in November, 1998 to over 16,700 lines in April, 1999. In April, 1999, the bypass share of business lines in Tampa was over 3%.

CLECs are becoming more successful in their marketing efforts. For example, MCI Worldcom has targeted firms that have operations in other states. They have been able to capture "national" firms by combining local service with their national account offers covering long distance services. Following this approach, MCI was successful in capturing a large insurance provider in Tampa. That one customer accounted for an OC-12 order.

Similar growth rates are observed for GTE's Dallas and Los Angeles franchise areas.

III. Analysis of Facilities-Based Competition in Eight Franchise Areas

Estimated lines for selected CLECs are provided in the accompanying tables. These estimates were obtained using PNR's CLAIMS[tm] process along with PNR's models of wholesale activity. UNE loops were inferred from co-location agreements. Resale estimates were derived from PNR's retail market share survey and calibrated using internal GTE data.

CLEC Market Activity in GTE Franchise Area of Tampa, Florida

Many CLECs recently have deployed their own fiber and class five switches within the Tampa MSA to facilitate transport and local switching without reliance on GTE's network. As the table below demonstrates, three of the seven facilities-based CLECs in the Tampa area are purchasing UNE loops from GTE; the others are using either their own facilities entirely or a combination of service resale and total bypass. The quantity of CLEC bypass lines has grown nearly threefold from an estimated 6,600 in December, 1998 to 16,000 lines by April, 1999; this underscores that CLECs in the Tampa area are utilizing their own facilities as the preferred means to reach customers.

TAMPA			
CLEC Name	Bypass	Resale	UNE
AT&T	192	33	16
e.spire Communications	1,310	2,940	14
Intermedia Communications (ICI)	2,000	4,750	
MCI Worldcom	10,117	18	7
Time Warner Telecom	125		
US LEC	74		
WinStar	2,000	9	

Facilties-Based Competitors By GTE Franchise Area

LOS ANGELES, CA	DALLAS/FT. WORTH	TAMPA, FL
AT&T	AT&T	AT&T
MCI WorldCom	MCI WorldCom	MCI WorldCom
Intermedia (ICI)	Intermedia (ICI)	Intermedia (ICI)
WinStar	WinStar	WinStar
Teligent	Teligent	Teligent
	e.spire	e.spire
Level 3	Level 3	Time Warner
Frontier	Frontier	US LEC
Allegiance	Allegiance	
NextLink	NextLink	**FT. WAYNE, IN**
Pac-Bell CLEC	SBC CLEC	KMC
Focal		US Xchange
GST	**LEXINGTON, KY**	
MediaOne	Hyperion	
ICG	ICG	
MGC	e.spire	**MYRTLE BEACH, SC**
Cox	BellSouth CLEC	Horry Telephone Co./HTC Communications
Time Warner		Time Warner

OXFORD JUNCTION, IA
Lost Nation - Elwood Telephone Co.

LABELLE, EWING, AND LEWISTOWN, MO
Mark Twain Telephone Co./Mark Twain Comm.

CLEC Deployment of Self-Provided Network Elements

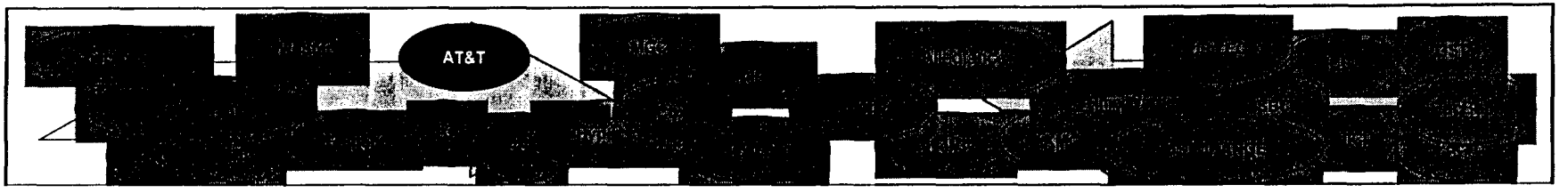
√ = Self-supplies network element in one or more areas
☆ = Generally leases network element from other carriers

Blank = No information available

CLEC Name	Switching	Transport	Loops/NID	OSS	SS7	OS/DA
Allegiance	√	√	☆	√	√	☆
AT& T	√	√	√	√	√	√
Cox California Telecom CLEC	√	√	√			☆
e.spire	√	√	√	√	√	☆
Focal Communications	√	☆	☆			
Frontier	√	√	√	√	√	√
GST	√	√	√		√	☆
Horry Telephone Cooperative/HTC Communications	√	√	√	√	√	√
Hyperion	√	√	√			
ICG Communications	√	√	√	√	☆	☆
Intermedia (ICI)	√	√	☆	√	☆	☆
KMC Telecom	√	√	√			
Level 3	√	√	☆			
Lost Nation-Elwood Telephone	√	√	√	√	√	√
Mark Twain Rural Telephone Co./MarkTwain Comm. Co.	√	√	√	√	√	√
MCI WorldCom	√	√	√	√	√	√
MGC Communications	√	√	☆			
Media One	√	√	√			
Nextlink	√	√	√	√	☆	☆
PacBell CLEC	√	√	☆	√	√	√
SBC CLEC	√	√	☆	√	√	√
Teligent	√	√	√	√	☆	√
Time Warner Telecom	√	√	√			√
US LEC	√	√	☆		√	
USXCHANGE	√	√	☆	√		
WinStar	√	√	√	√	☆	☆

Docket No. 990649-TP
Direct Testimony of Dennis B. Trimble
Exhibit DBT-4, Page 16 of 50
August 11, 1999

AT&T Synopsis



AT&T predominantly serves local customers via its own network. As of December 31, 1998, AT&T purchased no UNE loops from GTE and resold only a handful of GTE's lines. In the Dallas-Fort Worth, Los Angeles, and Tampa areas, AT&T possesses at least one class five switch in each market. As detailed below, AT&T also has significant transport capacity in Dallas, Los Angeles, and Tampa. None of AT&T's existing or planned facilities for cable telephone are captured in this report. However, it is clear that AT&T is moving ahead to enter the local exchange market with the aid of cable networks acquired through acquisitions, including Telecommunications, Inc. (TCI) and MediaOne. In early May, 1999, AT&T began offering local telephone service over TCI's cable television network to selected homes in Fremont, California, with plans to expand the phone-over cable trials to Seattle, Portland, Dallas, Salt Lake City, Denver, Chicago, St. Louis, and another to-be-determined city in the San Francisco Bay Area by the end of 1999.

AT&T has provided local service in the Dallas-Fort Worth Metroplex since mid-1996 (serving over 100 buildings) and competitive access services and data services since 1991. Although AT&T initially targeted customers in Southwestern Bell's territory, it has expanded into GTE's service area. Presently, AT&T has end-to-end offers for switched (DS-0) and dedicated (DS-1) access customers that include local, intraLATA, toll-free long distance, and international services. Customers receive a single bill and earn discounts based on total eligible bundled usage. AT&T also targets dedicated local and intraLATA-only service for businesses with heavy local calling patterns.

In terms of facilities, AT&T has two class five switches in Dallas, one Lucent 5ESS with DACS IV cross connects and DDM multiplexers and one Nortel DMS100 acquired along with TCG. AT&T's local transport capacity in the Metroplex

spans approximately 500 route miles, stretching from downtown Dallas to the suburbs located north and west of the city. Specifically, AT&T's extensive local network in the Metroplex runs through the central business district in downtown Dallas and extends into Irving and Las Colinas, northward to Carrollton, Addison, Richardson, and Plano, and also campuses the DFW airport and parts of Arlington, Garland, and Fort Worth.

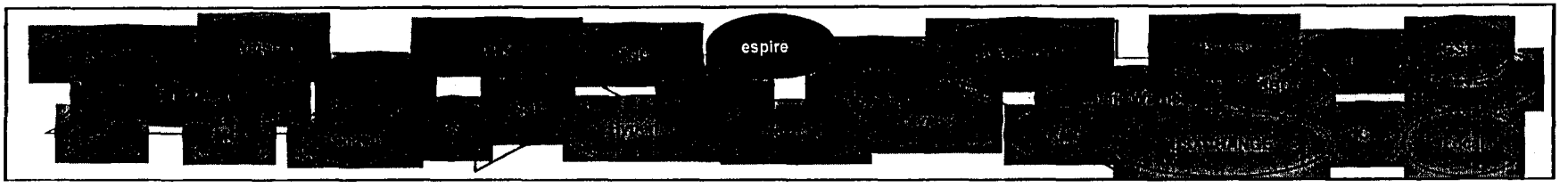
Each of AT&T's fiber networks are of SONET ring architecture. Specifically, local AT&T technical professionals indicate that there are currently no fewer than ten self-healing SONET rings transmitting voice and data traffic in the Metroplex. Their network backbone runs at speeds up to OC48 (4 OC48 and 6 OC3), and AT&T Local has installed 12 nodes along the Dallas network. In the greater Tampa and Los Angeles areas, AT&T also has deployed extensive local facilities. AT&T operates SONET rings in both cities, and company representatives have indicated plans to expand fiber within Tampa, Clearwater, and Polk County. AT&T has one class five digital switch—a Lucent 5ESS—in each of Tampa and Los Angeles.

AT&T Synopsis (continued)

	Dallas-Fort Worth	*Tampa*	*Los Angeles*
Facilities	Two class five switches – Lucent 5ESS – DMS100	One class five switch – Lucent 5ESS	One class five switch – Lucent 5ESS
	SONET rings covering Addison, Arlington, Carrollton, Dallas, Garland, Fort Worth, Irving/Los Colinas, and Richardson.	SONET ring covering Clearwater, Sarasota, St. Petersburg, and Tampa.	SONET ring covering Anaheim, Gardena, Long Beach, Los Angeles, Oxnard, Santa Monica, San Bernadino, and Sherman Oaks.
Targeting	• Targets business and residential customers. In contrast to MCI, AT&T targets small and medium size businesses as well as large businesses with which AT&T has national accounts as an IXC. • Considers over 90% of its present business customers to be multi-carrier, using another provider for voice and AT&T for data or internet.		
Strategy	• No comprehensive wholesale strategy was revealed, but AT&T has announced "private label" Internet services targeted for local exchange carriers among others. • Leverage local broadband CATV monopolies, wireline assets of TCG, and fixed wireless technology. • Did not disclose contractual details of any partnerships.		

		Yes	No
Service Offerings (Dallas-Fort Worth, Tampa, Los Angeles)	Local access (dial tone)	✓	
	Switched services	✓	
	Dedicated lines (data)	✓	
	Special access services	✓	
	Internet	✓	

e.spire Synopsis



As a facilities-based carrier, e.spire targets business customers in 35 markets, primarily in the south and southeast Unites States. The company provides dedicated, local, and long distance voice services as well as frame relay, ATM, and Internet services. With a minimal reliance on ILEC UNEs and service resale, e.spire's facilities-based network is designed to serve customers on an end-to-end basis. As of December 31, 1998, e.spire's network was comprised of 1,742 route miles of fiber in its 35 local networks in 21 states, 66 Newbridge ATM switches, 19 Lucent 5ESS switches and approximately 22,000 backbone long-haul miles in its leased coast-to-coast broadband data network.

Entering the Dallas-Fort Worth Metroplex in 1994, e.spire provided competitive access services in Fort Worth. In 1996, e.spire began pursuing its strategy to provide local switched services and aggressively built its network in the area. The company's network in the Metroplex now encompasses 230 route miles of fiber and three Lucent 5ESS switches. Since then, e.spire has focused on adding buildings to the network and marketing its existing capabilities. E.spire's network in Dallas includes one OC-48 SONET ring in Dallas, another OC-48 SONET ring in Fort Worth, and a third OC-48 SONET ring that runs through the Irving/Los Colinas suburbs of Dallas and connects the first two.

e.spire Synopsis (continued)

In Tampa, e.spire also has deployed a Lucent 5ESS switch and a self-healing fiber optic SONET ring that serves the central business district downtown and surrounding area. Expansion plans of 32 miles were implemented in 1997: (1) an expansion westward from downtown to the business district near Westshore and Cypress; and, (2) an expansion from downtown eastward to business parks in Sable Park and Temple Terrace.

In addition to deploying facilities aggressively, e.spire has used acquisitions and alliances to increase its customer base and leverage marketing opportunities. For example, e.spire acquired ISP Cybergate in the first quarter of 1997 in an equity transaction, and it acquired ISP ICANECT's subscriber base in the third quarter of 1998 in a cash and equity deal. Furthermore, in August 1998, e.spire established a long-term lease arrangement with Metromedia Fiber Network to expand its local networks in New York and Philadelphia and to establish a long-haul network route from New York to Baltimore. E.spire also has an agreement for long-term access to a 432-strand fiber optic cable in Hyperion's south Florida network; at the same time, e.spire will provide Hyperion with network construction and professional services worth $30 million over the next four years. E.spire is primarily a facilities-based competitor, but it has also acquired UNEs and does utilize ILEC service resale. For example, in Tampa, e.spire has purchased 14 UNEs and has 2,940 resale lines.

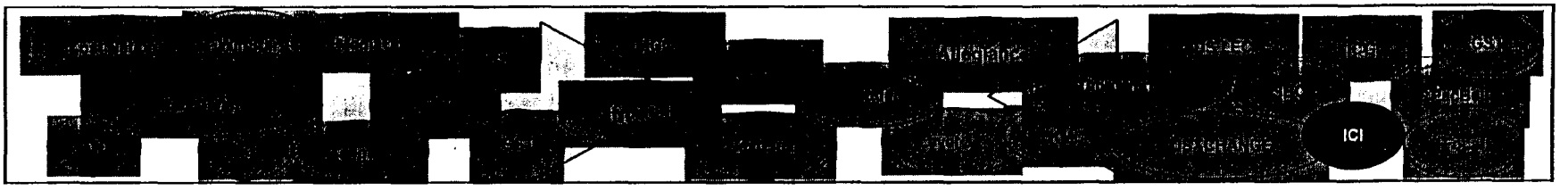
One of the vertical dimensions along which e.spire competes is through the local calling scope. The company's bundled service offering, Platinum Service, has flat-rate pricing for local calls with no additional charge for the most enhanced features. In specific areas, however, the flat rate extends to areas that would generate toll charges with other carriers. For example, "Corridor Calling" service allows calling throughout the Washington-Baltimore markets at the price of a local call. Similarly, in Lexington, Kentucky, e.spire offers a four-county calling scope.

e.spire Synopsis (continued)

	Dallas-Fort Worth	*Lexington, KY*	*Tampa*
Facilities	Three class five switches • Three Lucent 5ESS Three OC48 SONET rings covering Dallas, Fort Worth, and Irving/Los Colinas.	Co-location in Lexington	One class five switch • Lucent 5ESS SONET rings covering downtown, Westshore, and Temple Terrace.
Targeting	• Medium to large-sized businesses • Institutional customers and government offices • Offers dedicated, local, and long distance voice services (domestic and international) as well as frame relay, ATM, and Internet services. • Flat-rate pricing for local calls with no additional charge for the most popular custom calling features is available • Prepackaged and custom data solutions		
Strategy	• Strategy to expand network via construction and acquisition • Own and operate high-capacity networks with broad market coverage • Non-traditional pricing, including expanded local calling areas broader than those offered by ILEC		

Service Offerings	Yes	No
Local access (dial tone)	✓	
Enhanced services	✓	
Switched services	✓	
Dedicated lines (data)	✓	
Special access services	✓	
Long Distance	✓	
Internet	✓	

Intermedia Synopsis (ICI)



Intermedia Communications Incorporated (ICI) is a facilities-based carrier that offers an integrated service package for retail business, institutional, and government customers as well as wholesale provision to other carriers. ICI's retail packages include local, long-distance, and data products. Under a broad-based network strategy, ICI uses some resold services and ILEC UNE's to provide service. As economically justified, however, ICI migrates customers onto its own facilities. Under this migration strategy, ICI has maintained a high-level of revenue per dollar of gross plant: approximately $0.63 for each dollar invested in 1997. ICI's own facilities are extensive. ICI has deployed well over 40,000 fiber miles nationally and usually operates its own class five switch in each of the markets that it operates. ICI also actively uses alliances, agreements, and acquisitions to expand its capacity.

ICI added several fiber routes in the latter half of 1998. Specifically, ICI completed deals with Metropolitan Fiber Network and Williams worth nearly a half-billion dollars for metropolitan and long-haul fiber routes. These agreements give ICI the opportunity to expand its fiber-based services in Boston, New York, Philadelphia, Chicago, and Washington, D.C., and on the West Coast. At the end of the first quarter, 1999, ICI was certified as a competitive local exchange carrier (CLEC) in 37 states and the District of Columbia. And as of March 31, 1999, ICI had 4,359 buildings connected, with 23 voice switches in operation and 376,742 access line equivalents.

Intermedia Synopsis (ICI) (continued)

ICI also has actively expanded its market reach and range of services through acquisitions. As shown in the table below, ICI has acquired a CLEC, IXC, ISP backbone provider, and shared tenant service provider in the last 24 months.

Company Acquired	Main Business	Details
National Telecommunications of Florida	Switch-based CLEC/IXC	Concluded 2Q98 -- $151 million cash
Shared Technologies Fairchild	Shared Tenant Services	Concluded 1Q98 -- $640 million stock/debt
LDS Communications	IXC	Concluded 1Q98 -- $168 million stock/cash/debt
DIGEX	ISP backbone provider	Concluded 2Q97 -- $150 million stock

The DIGEX acquisition in particular enables ICI to add Internet solutions to its service portfolio and leverage cross-selling opportunities, especially to the business customers acquired with National Telecommunications of Florida.

Within the markets being profiled in this research, ICI has deployed facilities actively. In Dallas and Tampa, ICI operates **four** Nortel DMS500 switches in each market; this seemingly excessive count was confirmed by ICI representatives. Additionally, ICI has one DMS500 in the greater Los Angeles area. For transport, ICI has two OC48 SONET rings in Dallas that consist of 140 strand bi-directional fiber. ICI also has stated plans to install at least four additional OC-48 SONET rings to cover the suburban areas of the Metroplex. Details of ICI's fiber configuration in Tampa and Los Angeles are not known.

Intermedia Synopsis (ICI)(continued)

	Dallas-Fort Worth	*Tampa*	*Los Angeles*
Facilities	Four class 4/5 switches – Nortel DMS500 SONET Rings	Four class 4/5 switches – Nortel DMS500 SONET Ring	One class 4/5 switch – Nortel DMS500 SONET Ring
Targeting	• Business, institutional/government customers as well as other carriers • Estimates that 75% of its customers have other carriers and prefer to "piece together their telecommunications packages" • Large buildings where connections can be controlled		
Strategy	• Will utilize services or facilities of other CLECs • Wholesales to non-facilities-based CLECs • Utilizes the operating efficiency of its ATM network to aggressively price services • Will utilize resold services and UNEs as market entry strategies where economics dictate		

Service Offerings	Yes	No
Local access (dial tone)	✓	
Switched services	✓	
Dedicated lines (Data)	✓	
Internet	✓	

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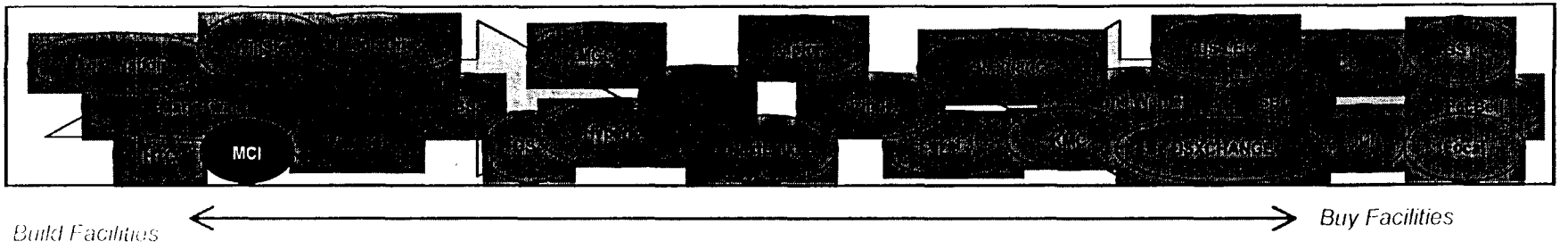
MCI WorldCom Synopsis



MCI WorldCom serves local customers primarily through service resale and total facilities bypass of GTE's facilities. As of December 31, 1998, MCI purchased no unbundled network element (UNE) loops from GTE. MCI also purchased no local, tandem or inter-switch transport as UNEs. In Dallas-Fort Worth, Los Angeles and Tampa, MCI WorldCom possesses class five switches in each market that serve redundant geographic areas with those of GTE. MCI also has extensive transport facilities in these markets, as detailed below. Finally, MCI WorldCom's local offer encompasses operator and directory services, apparently self-provisioned by MCI.

MCI WorldCom began offering local services in the Metroplex during the fourth quarter of 1996, but it previously had offered access and data services. The company covers the vast majority of suburbs to Dallas, including Addison and Irving on a facilities-basis. Consistent with its national strategy, MCI WorldCom in the Dallas-Fort Worth Metroplex primarily targets a suite of services towards large business customers. MCI WorldCom's local service offering, however, includes provision of emergency 911, a directory listing, operator service and equal access. In addition to local service, MCI WorldCom offers Internet dial and access, private line (domestic and international), frame relay, remote LAN dial, ATM, ISDN and managed services. Overall, MCI WorldCom is estimated to serve over 250 buildings on-net in the Metroplex.

MCI WorldCom Synopsis (continued)

As a facilities-based carrier, MCI WorldCom is known to operate class five switches (DMS10s, DMS100, DMS500), and over 700 route miles of fiber in the Dallas-Fort Worth Metroplex. MCI WorldCom's DMS500 is capable of connecting up to 100,000 trunks. The DMS100 switch, 25 miles of fiber, and 30 lit buildings belonged to MCI prior to its merger with WorldCom; this switch is capable of being converted to a Nortel DMS-500 switching system if such a conversion becomes economical. The fiber backbone transmits voice and data at OC-48, although several fiber spurs run more slowly; most fiber from the former MCI Dallas network supports DS-1 or DS-3 interfaces, but several from the former WorldCom network run at OC-3 or OC-12.

In Tampa and Los Angeles, MCI WorldCom has been operating for over one and a half years. According to MCI WorldCom representatives, the company has a SONET ring and two class five switches serving the Tampa area and a similar but unspecified network architecture with two class five switches in Los Angeles. MCI WorldCom representatives stated that switched analog services currently are offered only via leased lines (resold) from GTE (Tampa and Los Angeles) and PacBell (Los Angeles), but the company plans to grow its on-net provision of customers: "We are getting away from that and shifting everything to our own lines."

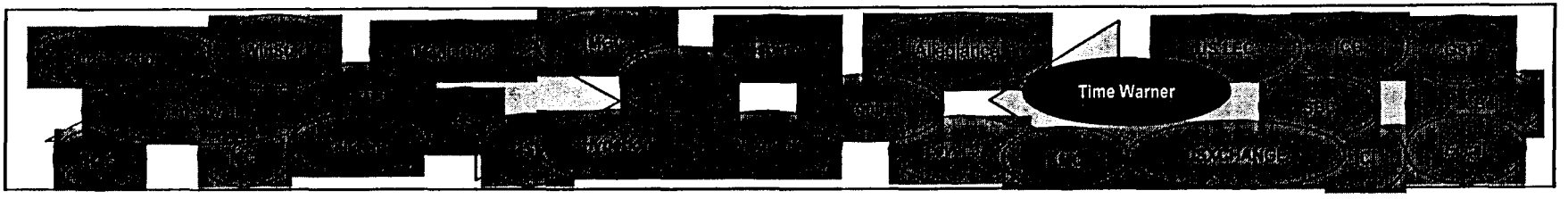
MCI/WorldCom claims that it has been successful in targeting the local branches of its national accounts to use its digital local loop service, and it plans aggressively to target a wider range of local businesses as it completes its network build-out. MCI/WorldCom states that it does not actively breakdown the percentage of its traffic is voice or data because "it does not matter on a digital system. We just give the customer a digital line, and if the customer installs a PBX, then the traffic is voice. If the customer installs a router for the line, then it is for data." MCI/WorldCom estimates that overall, however, the traffic on these digital lines approximately is predominantly voice (70% in Tampa, 60% in Los Angeles).

MCI WorldCom Synopsis (continued)

	Dallas-Fort Worth	*Tampa*	*Los Angeles*
Facilities	Four class five switches – One DMS500 – One DMS100 – Two DMS10S SONET ring covering Dallas-Fort Worth Metroplex	One class five switch – DMS100 SONET ring covering Clearwater, Hudson, Plant City, St. Peters-burg, Tampa, and Tarpon Springs	Three class five switches – One DMS100 – One DMS 250 – One Lucent 5ESS SONET ring covering Anaheim, Irvine and Los Angeles
Targeting	• Overarching strategy of actively targeting local Dallas/Ft. Worth, Tampa, and Los Angeles area branches of its IXC business national accounts. • Preferred minimal target of 12 lines with an ideal target of 50 or more lines. Comfortable with lower-end customers using ILEC for local access if for voice carriage only. The greater a customer's data needs, the more MCI will look to win its local access business.		
Strategy	• No formalized wholesale strategy was revealed, but MCI WorldCom engages in some ad-hoc activity, mainly in the Los Angeles area. • Offers a suite of bundled services, including long-distance, local wireline, and many data/Internet services.		

Service Offerings	Yes	No
Local access (dial tone)	✓	
Switched services	✓	
Dedicated lines (data)	✓	
Special access services	✓	
Internet	✓	

Time Warner Telecom Synopsis



Formed as a partnership of US West and Time Warner in June 1993, Time Warner Telecom builds, operates, and maintains its own SONET-based fiber networks. As of the third quarter 1998, Time Warner operated 19 local networks that consisted of 6500 route miles, 2.5 million voice-grade equivalent circuits, and 16 switches. In addition to these facilities, Time Warner and AT&T announced in February 1999 a joint venture to provide cable telephony though Time Warner's cable system in 33 states. With Time Warner's expanded network, it will be able to bypass ILEC networks completely, requiring no UNEs.

Although Time Warner does not serve residential customers at this time, it currently offers a full complement of analog switched and digital local services (from fractional T1 to OC-12) to business customers. Some ILEC service resale is employed, and customers are subsequently migrated onto Time Warner's network. The joint venture with AT&T will increase Time Warner's capacity for local and long-distance telephony significantly and expand its customer targeting to both residential and business segments.

Time Warner Synopsis (continued)

In Tampa, Time Warner operates one Lucent 5ESS switch and a rapidly growing network. Its SONET ring in Tampa is about 75% complete with 217 miles. In comparison, Time Warner's SONET ring in Orlando has over 600 miles deployed. In addition to retailing services over its own facilities in Tampa, Time Warner also an active wholesale provider to other carriers. Time Warner representatives declined, however, to identify any specific arrangements.

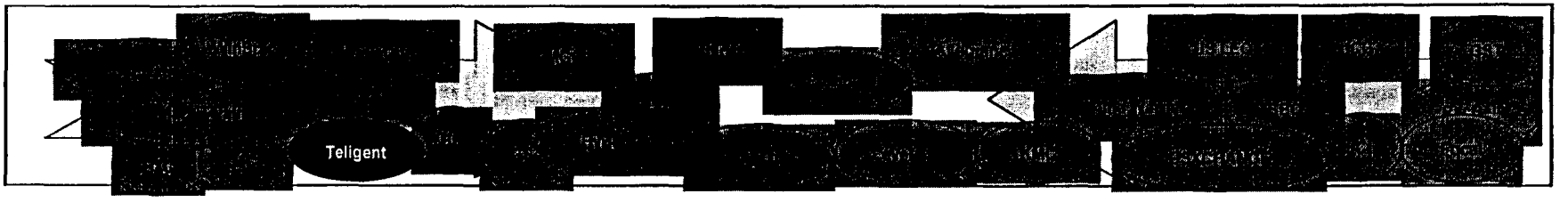
In Dallas, Time Warner announced in March 1999 that it will offer dedicated transport, long distance, high-speed Internet access and switched local services to medium and large-sized businesses beginning this summer. Time Warner is constructing a fiber optic network in the area using leased conduit in an agreement with Level 3 Communications, Inc.

Time Warner Synopsis (continued)

	Tampa	*Los Angeles*
Facilities	One class five switch – Lucent 5ESS SONET ring covering Bradenton, Clearwater, Lakeland, Sarasota, St. Pete, Tampa and Zephyrhills	One class five switch – Lucent 5ESS
Targeting	• Business customers with a preferred minimum of 12 lines • Wholesale customers to utilize unused network capacity • Offers a full complement of analog switched and digital local services (from fractional T1 to OC-12) to business customers • Planned expansion into all market segments with cable-based telephony via joint venture with AT&T	
Strategy	• With existing network and customer base, uses ILEC resale initially with migration on-net • Recent deal with AT&T will position Time Warner as an integrated service provider to all customer segments in 33 states • Joint venture with AT&T will provide local and long distance capabilities with complete bypass of ILEC networks.	

Service Offerings	Yes	No
Local access (dial tone)	✓	
Switched services including long distance	✓	
Dedicated lines (data)	✓	
Special access services	✓	
Internet		✓

Teligent Synopsis



As of March 1999, Teligent is active in 24 markets and plans to expand to 40 markets by the end of the year. Teligent deploys a wireless local network and its own class five switches that enable it to bypass ILECs entirely, so no UNEs are necessary for the loop.

Teligent claims its wireless local network offers at least four advantages: (1) economical coverage of an entire metropolitan area, (2) addressability of the entire local business market wherever deployed, (3) lower network costs compared to fiber deployment, and (4) broadband capacity for high-speed data and Internet services. With purportely low network development costs, Teligent aggressively prices its services upwards of 30% below its wireline competitors.

As an example of addressability, a single-base station for Teligent serves a cell sector about 4 kilometers wide and can provide dedicated two-way bandwidth-on-demand to any building in a line-of-sight. The coverage area utilizing Teligent's 24-gigahertz frequency is approximately two miles. The key to Teligent's network strategy is access to rooftop locations for its antennas; Teligent currently has secured leases or lease options for roof access to 2,400 potential customer buildings and CLEC certification covering all 74 of its eventual planned markets.

Teligent Synopsis (continued)

In the Dallas-Fort Worth Metroplex, Teligent launched its network in July 1998 and has installed the rooftop equipment necessary to access at least 60 buildings. Furthermore, Teligent has agreements in place for access to 60 additional buildings in the Dallas area. At the hub of this network is a Nortel DMS500 switch that routes local switched traffic in the Dallas area. The network also utilizes Nortel routers and ATM switches, enabling Teligent to handle voice and data traffic through its own facilities.

As in Dallas, Teligent operates Nortel DMS500 switches in Tampa and Los Angeles. In Los Angeles, Teligent launched commercial service over its network near the end of the fall of 1998 after initial beta testing of service to three base stations (hub sites) and 19 customer buildings. According to Dallas-based representatives of the company, the only UNEs used by Teligent are inter-office transport and SS7. Teligent provides its own (wireless local) loops, local and tandem switching, operator and directory assistance, and operation support systems. Teligent was not purchasing any UNEs from GTE as of December 31, 1998.

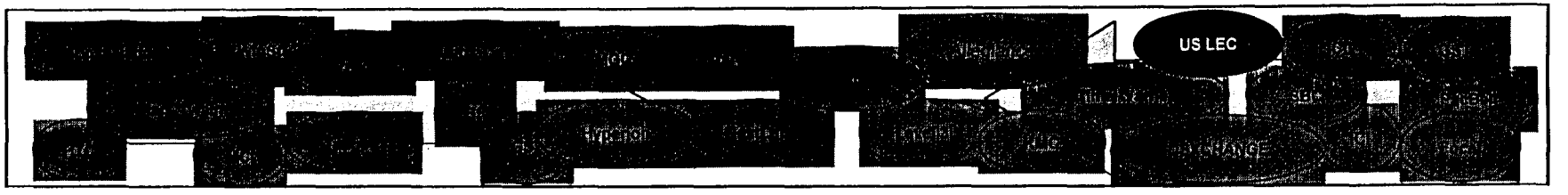
Although Teligent is a relative upstart even among CLECs, it enjoys a strong funding position with approximately $1.3B in available capital. Furthermore, Teligent is backed by large equity partners with telecommunications experience: the Associated Group, Inc. who has had a history of ventures in wireless, radio and cable television; Telecom Ventures, LLC who owns a majority of publicly-traded LCC International, Inc., one of the world's largest wireless engineering companies; and, Nippon Telegraph and Telephone Corp. of Japan, which has invested $100 million in Teligent, is one of the world's largest and most technologically advanced telecommunications companies. Additionally, Teligent has named Nortel (Northern Telecom) as its preferred equipment supplier and principal network integrator.

Teligent Synopsis (continued)

	Dallas-Fort Worth	*Tampa*	*Los Angeles*
Facilities	One class five switch -- DMS500 Broadband wireless local network	One class five switch -- DMS500 Broadband wireless local network	One class five switch -- DMS500 Broadband wireless local network
Targeting	• National strategy of targeting small to medium-sized businesses (fewer than 50 lines). • Focus on retail sales to end-users, not wholesaling. • If a customer enters into a one year (or longer) contract, discounts are available of up to 30% relative to wireline competitors for similar services. • Offers a suite of bundled services, including long distance, local wireline, and many data/internet services. Market expansion predicated on establishing a base station within a targeted geographic market.		
Strategy	• As customers are acquired, fixed wireless transmission equipment is purchased and deployed. • Emphasize high quality services and speed-to-market for its fixed wireless network architecture to provide facilities-based competition. • Interactive support provided via web-based business management tools that allow the customer to view their bill online.		

Service Offerings	Yes	No
Local access (dial tone)	✓	
Switched services	✓	
Dedicated lines (Data)	✓	
Special access services	✓	
Internet	✓	

US LEC Synopsis



US LEC is a rapidly growing facilities-based carrier that provides local, long-distance, and enhanced services. Similar to Focal Communications, US LEC employs a "smart build" strategy of purchasing and deploying switching equipment then leasing fiber optic transmission capacity from other carriers. As of the first quarter 1999, US LEC operated 12 Lucent 5ESS Any Media™ switches and has announced plans to install four additional switches by the end of the year. Furthermore, US LEC has begun installing Alcatel MegaHub 600ES tandem switches to complement its Lucent switches, thereby improving its ability to offer calling card, toll-free, operator, and Virtual Private Network (VPN) services.

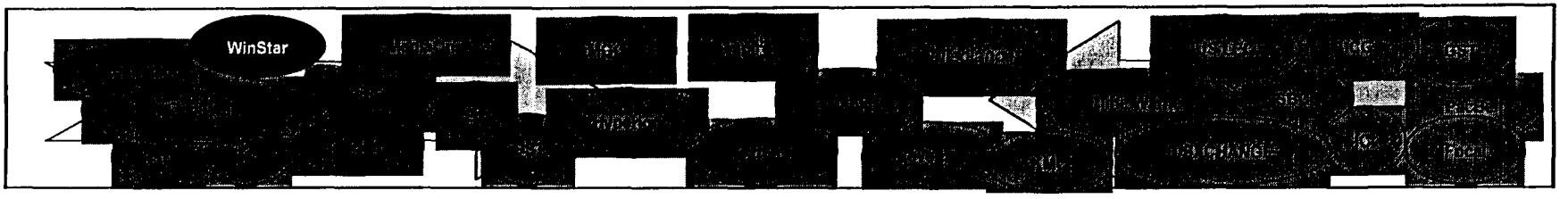
US LEC targets business, institutional, and government customers as well as Internet service providers with a full range of offerings: local, long-distance, enhanced services, Internet access, and data networking. Since US LEC's facility deployment emphasizes a regional clustering of operations, it claims a growing portion of its customers' calling is routed onto its own network.

In Tampa, US LEC installed a Lucent 5ESS switch in December 1998: the fourth switch US LEC has deployed in Florida and an example of US LEC's regional strategy. At that time, US LEC purchased no UNEs or resold services from GTE in the area.

US LEC Synopsis (continued)

	Tampa		
Facilities	One class five switch – Lucent 5ESS		
Targeting	• Targets business, institutional, and government customers as well as Internet service providers • Offers local, long-distance, enhanced services, Internet access, and data networking		
Strategy	• Employs a regional clustering strategy • Employs a "smart-build" strategy: deploys its own class five switches and utilizes transport facilities of other carriers • Derives a significant portion of its revenues from reciprocal compensation arrangements with the ILECs, particularly Bell South		
Service Offerings		Yes	No
	Local access (dial tone)	✓	
	Switched services including long distance	✓	
	Dedicated lines (data)	✓	
	Special services	✓	
	Internet	✓	

WinStar Synopsis



Similar to Teligent, WinStar is a facilities-based carrier that utilizes a fixed wireless loop technology as its primary network architecture. In contrast to Teligent, however, Winstar pursues both retail and wholesale customers, providing local loop alternatives to other carriers. WinStar typically enters markets by using ILEC resold services or UNE loops, and then it migrates customers to its own facilities as economically justified. WinStar's market entry strategy may be summarized as follows:

- Identify target buildings
- Acquire roof rights
- Install a switch on parallel paths
- Pre-wire target buildings
- Sell to customers in target buildings
- Replace resold lines with "wireless fiber" connections directly to the switch or to hub sites that are connected to the switch

WinStar's approach significantly reduces its reliance on UNEs, and it provides flexibility for total bypass of ILEC loop and switching facilities.

As a retail provider, Winstar offers a comprehensive set of services targeted towards small and medium-sized business customers: local, long distance, Internet, enhanced services, and information services. WinStar also offers Centrex, trunks, and digital T-1 service for customers with PBX (Private Branch Exchange) equipment on premise. And like Teligent, WinStar targets a price point about 25% below its wireline competitors.

WinStar Synopsis (continued)

As a wholesale provider, WinStar serves two important market niches: (1) facilities-based extension to existing competitive networks and (2) opportunities for resellers to use WinStar's capacity. WinStar positions itself as a quick, cost-effective solution for carriers to achieve the following results:

- Extend the reach of an existing fiber ring
  - Extend networks to new buildings
  - Reduce time to market
  - Increase capacity
  - Optimize working capital
- Provide local transport
- Interconnect cell sites in PCS/Cellular networks
- Serve as the primary link between buildings in a private network application
- Add route diversity (alternative path routing) or backups in any of these applications
- Provide bandwidth capable of handling voice, data and video applications.

Among markets profiled in this research, Dallas was one of the first that WinStar entered. Consistent with its strategy to install facilities in a central business district and then branch out to nearby markets, WinStar expanded its operations into neighboring Fort Worth in the first quarter of 1998. In the Metroplex, WinStar has placed transmission equipment on at least 50 buildings and has agreements in place for an additional 150 buildings; some of these buildings already are pre-wired and awaiting placement of a rooftop antenna. WinStar has similar network configurations in Tampa and Los Angeles, and the company operates at least one Lucent 5ESS switch to route local traffic in each market. In the greater Los Angeles area, WinStar has three Lucent 5ESS switches, and in Dallas-Fort Worth it has one. Data capability is provided by Newbridge ATM switches and Cisco routers. WinStar representatives indicated the company employs some UNEs for interoffice transport, SS7, and the loop, but it did not do so from GTE as of December 31, 1998. WinStar representatives also indicated that the company does not purchase UNEs for local switching, tandem switching, operator services, or directory assistance.

WinStar Synopsis (continued)

	Dallas-Fort Worth	*Tampa*	*Los Angeles*
Facilities	One class five switch – Lucent 5ESS Broadband wireless local network	One class five switch – Lucent 5ESS Broadband wireless local network	Three class five switches – All Lucent 5ESS Broadband wireless local network
Targeting	• Retail. Based on building locations, small and medium-sized businesses in 24 markets. • Retail. Offers broadband services and bundled packages at discounted prices coupled with a high degree of customer care. • Wholesale. Offers wholesale loop alternatives for facilities-based carriers. • Wholesale. Offers service resale opportunities to non-facilities based CLECs.		
Strategy	• Prefers to use own facilities due to the higher margins. • Employs ILEC UNEs and resold services as an initial entry strategy; migrates customers on-net as economically justified. • Utilizes fixed wireless network architecture that purportedly is less costly than fiber deployment; this cost advantage is expected to increase over time as the wireless technology advances. • Fixed wireless technology purportedly offers flexibility and speed-to-market advantages with minimal reliance on the ILEC facilities.		

Service Offerings	Yes	No
Local access (dial tone)	✓	
Switched services including long distance	✓	
Dedicated lines (data)	✓	
Special access services	✓	
Internet	✓	

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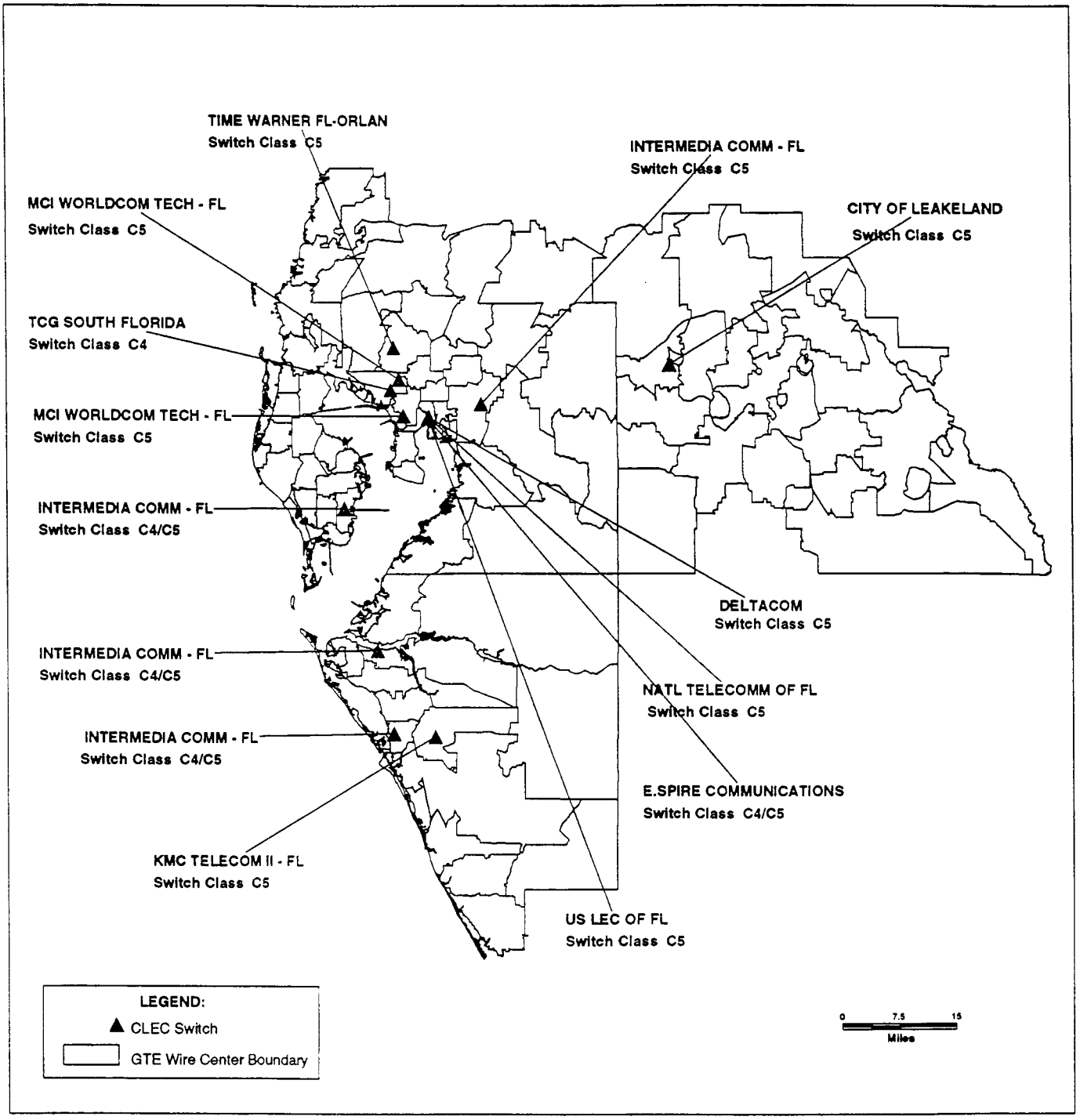
GTE Franchise Area – Florida CLEC Switch Deployment In Tampa, St. Petersburg, Clearwater, Lakeland, Sarasota, and Bradenton

Overview of Map 1.1

Map 1.1 demonstrates switch deployment by CLECs in GTE's Florida franchise area. Thirteen CLECs and one municipality in the area own and operate a total of 20 switches.

1.1 GTE Franchise Area - Florida: CLEC Switch Deployment In Tampa, St. Petersburg, Clearwater, Lakeland, Sarasota, and Bradenton



PNR and Associates, May 1999

GTE Comments in CC Docket No. 96-98

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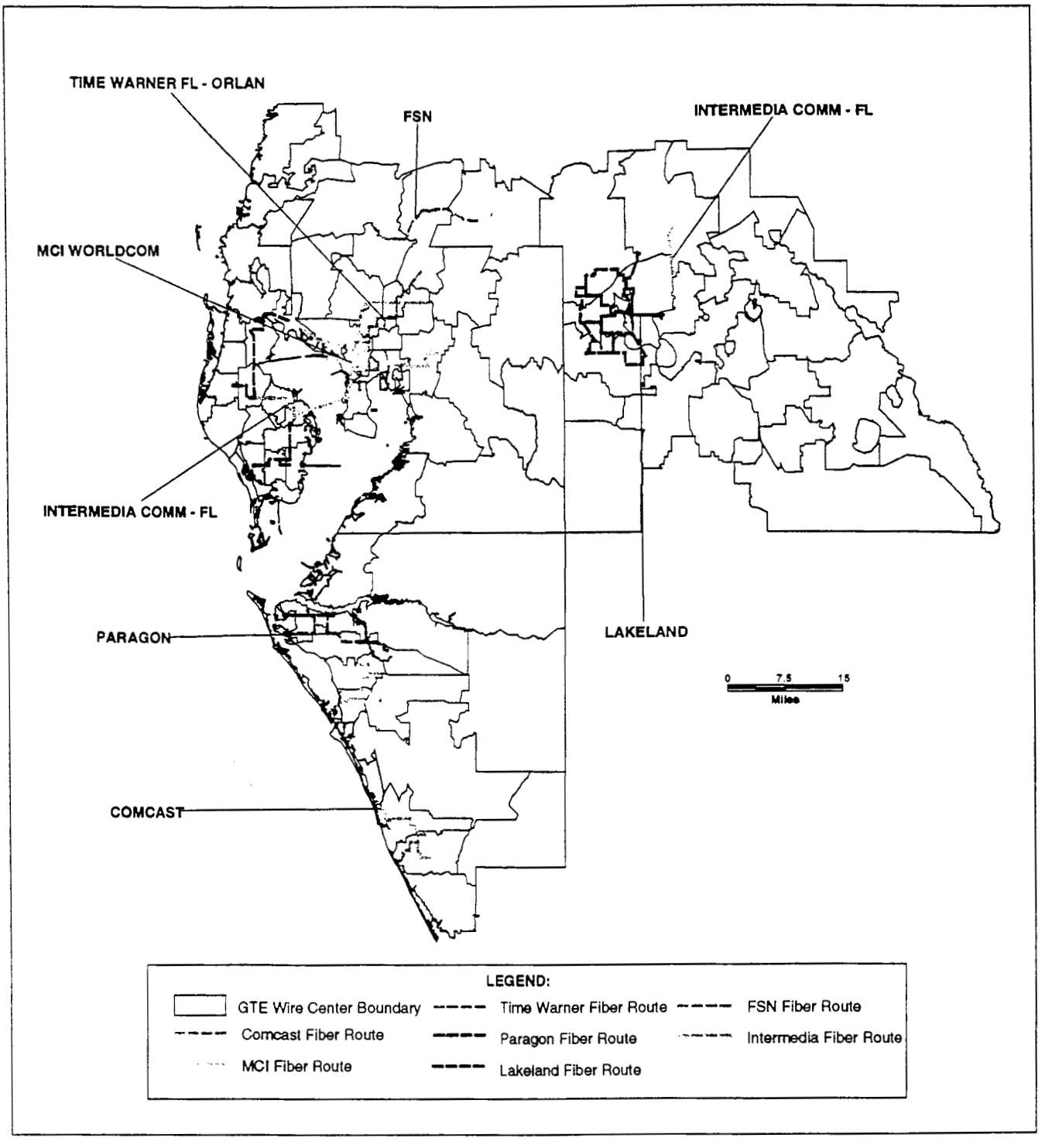
GTE Franchise Area – Florida
CLEC Fiber Deployment In Tampa, St. Petersburg, Clearwater, Lakeland, Sarasota, and Bradenton

Overview of Maps 1.2 – 1.5

Maps 1.2-1.5 demonstrate competitive fiber routes by carrier in GTE's Florida franchise area.

MCI owns the most extensive CLEC network in Tampa, which campuses the central business district. The networks of Time Warner and ICI, by contrast, traverse greater distances across the Tampa area.

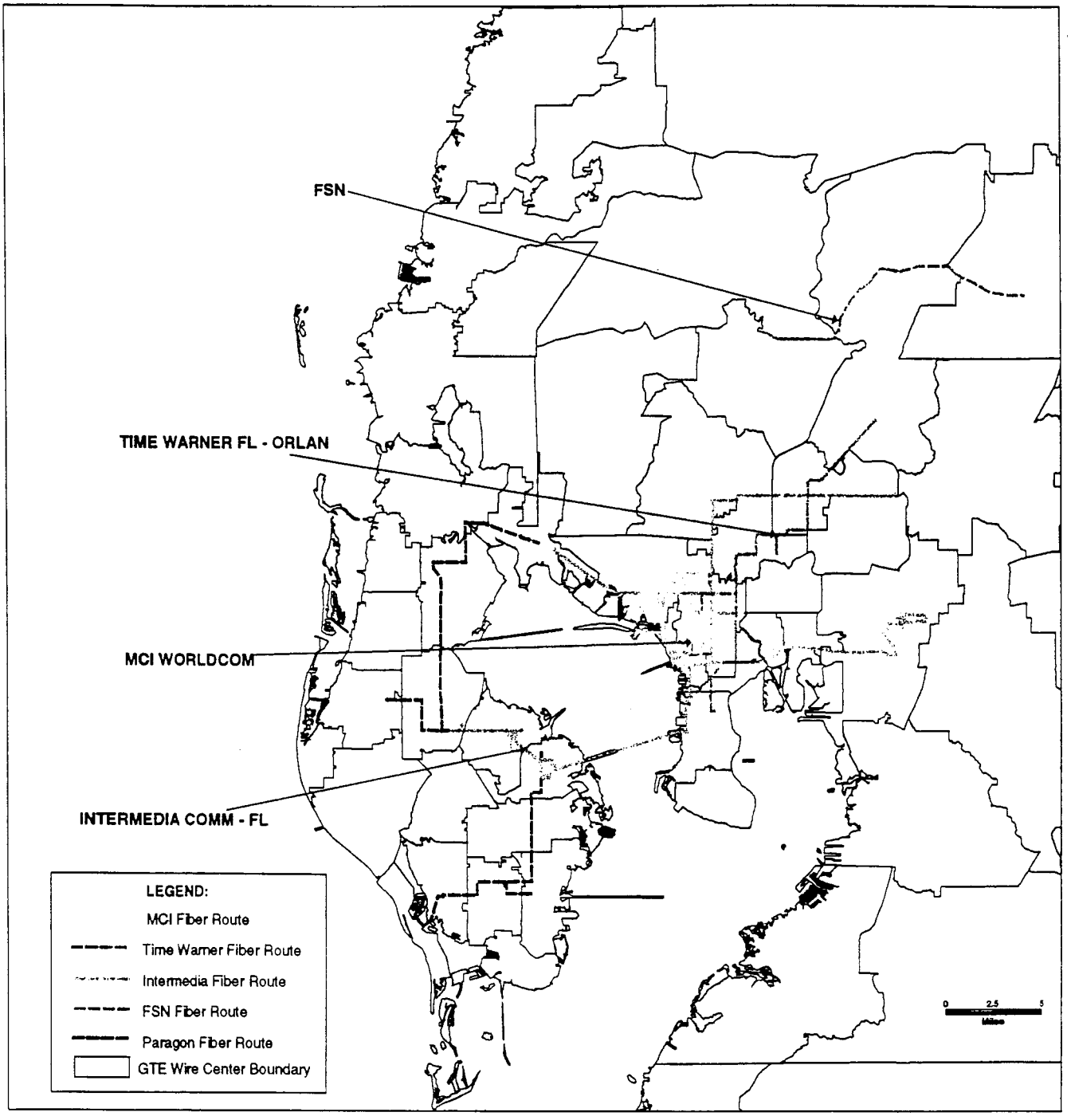
1.2 GTE Franchise Area - Florida: CLEC Fiber Deployment In Tampa, St. Petersburg, Clearwater, Lakeland, Sarasota, and Bradenton



PNR and Associates, May 1999

GTE Comments in CC Docket No. 96-98

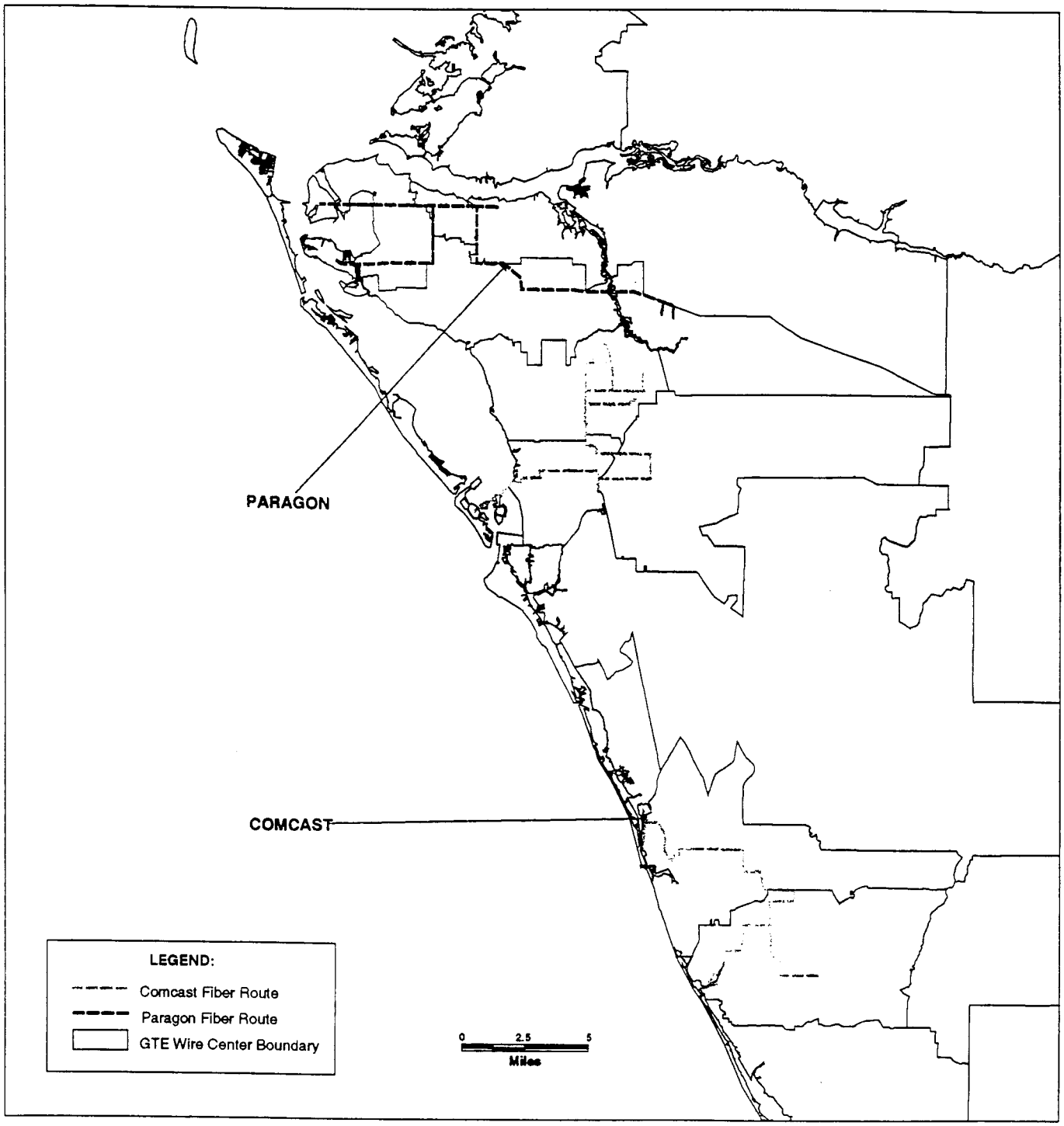
1.3 GTE Franchise Area - Florida: CLEC Fiber Deployment In Tampa, St. Petersburg, and Clearwater



PNR and Associates, May 1999

GTE Comments in CC Docket No. 96-98

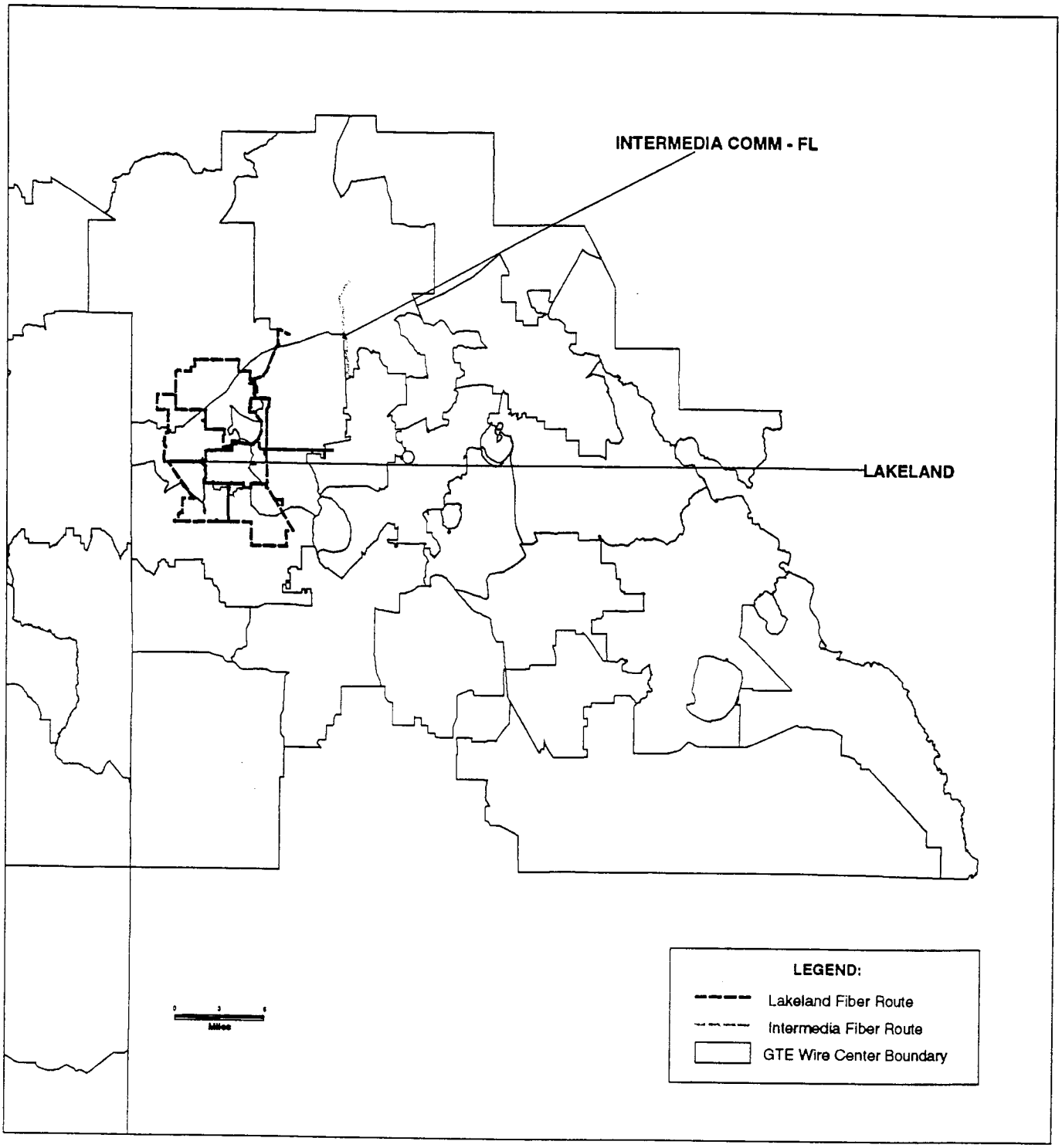
1.4 GTE Franchise Area - Florida: CLEC Fiber Deployment In Sarasota And Bradenton



PNR and Associates, May 1999

GTE Comments in CC Docket No. 96-98

1.5 GTE Franchise Area - Florida: CLEC And Municipal Fiber Deployment In Lakeland



PNR and Associates, May 1999

GTE Comments in CC Docket No. 96-98

GTE Franchise Area - Tampa And St. Petersburg, Florida: CLEC Bypass Customers And Addressable Market

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Overview of Maps 1.6-1.7

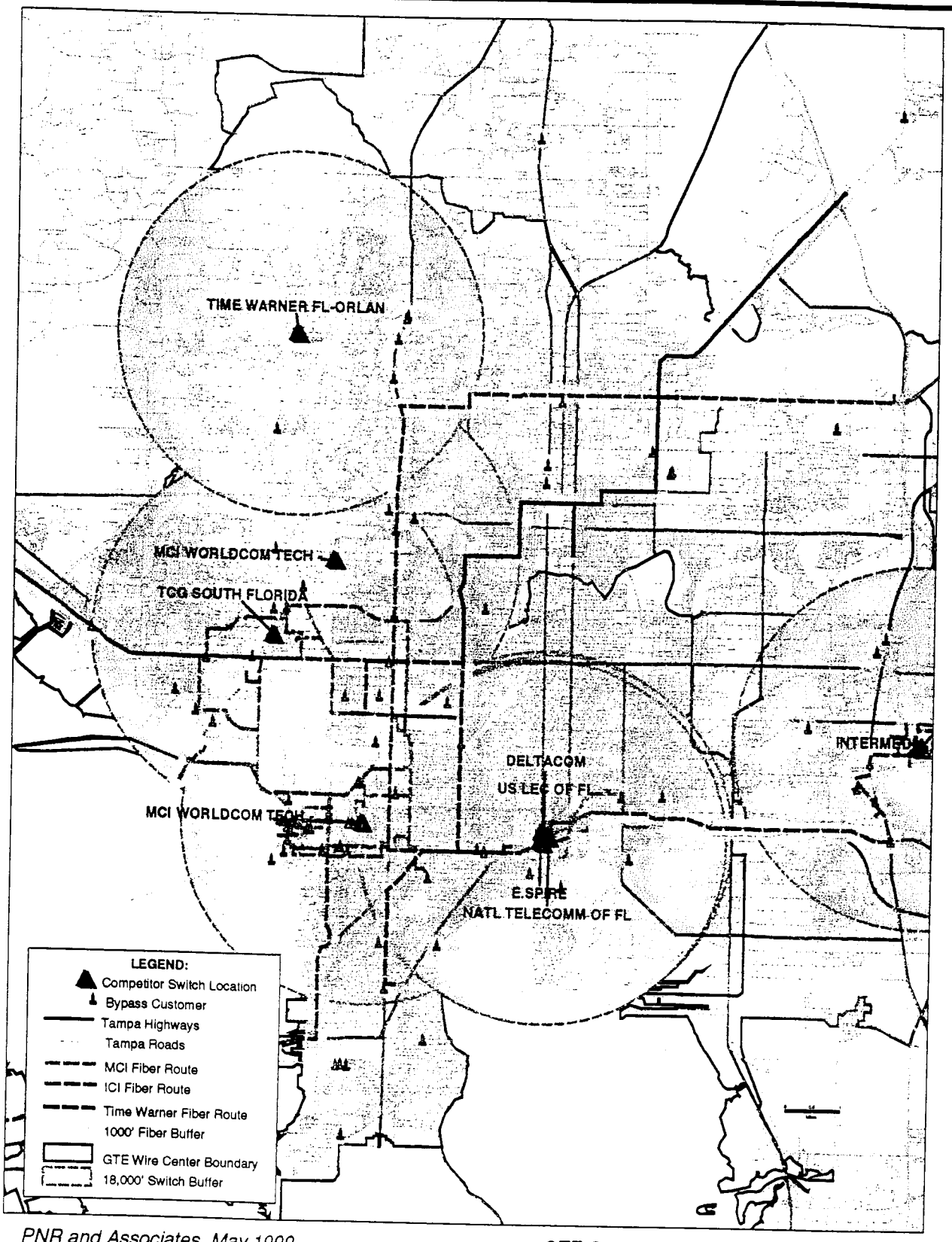
Map 1.6 demonstrates CLEC bypass customers and the addressable market based on competitive facilities in Tampa. Map 1.7 concentrates on St. Petersburg.

The following definitions are employed for the bypass and addressability statistics that follow:

- Customers that are Immediately Addressable region are defined to fall within a buffer area of 1,000 feet on either side of a competitor's fiber route.
- Customers that are Radius Addressable are defined to fall within a radius of 18,000 feet around a competitor's class five switch.
- Buildings may contain more than one bypass customer.

Facilities-based CLECs are targeting businesses of all sizes in Tampa, with MCI achieving the greatest penetration with over 10,000 bypass customers in the entire area. While the concentration of identified bypass customers visually does not appear to be significant, each building shown can represent a location with hundreds of businesses. Competitive switches and fiber are placed strategically and, by the addressability estimates here, upwards of 70% of businesses and 60% of residential customers can be reached easily from existing CLEC facilities. Both maps underscore why these estimates of addressability are conservative since many identified CLEC customers fall beyond the fiber buffer and switch radius. Furthermore, many of the customers in St. Petersburg and south Tampa are far from known CLEC fiber routes; some of these are UNE-provisioned customers, but others represent utilization of other loop alternatives available to CLECs, e.g., special access, wireless local loop.

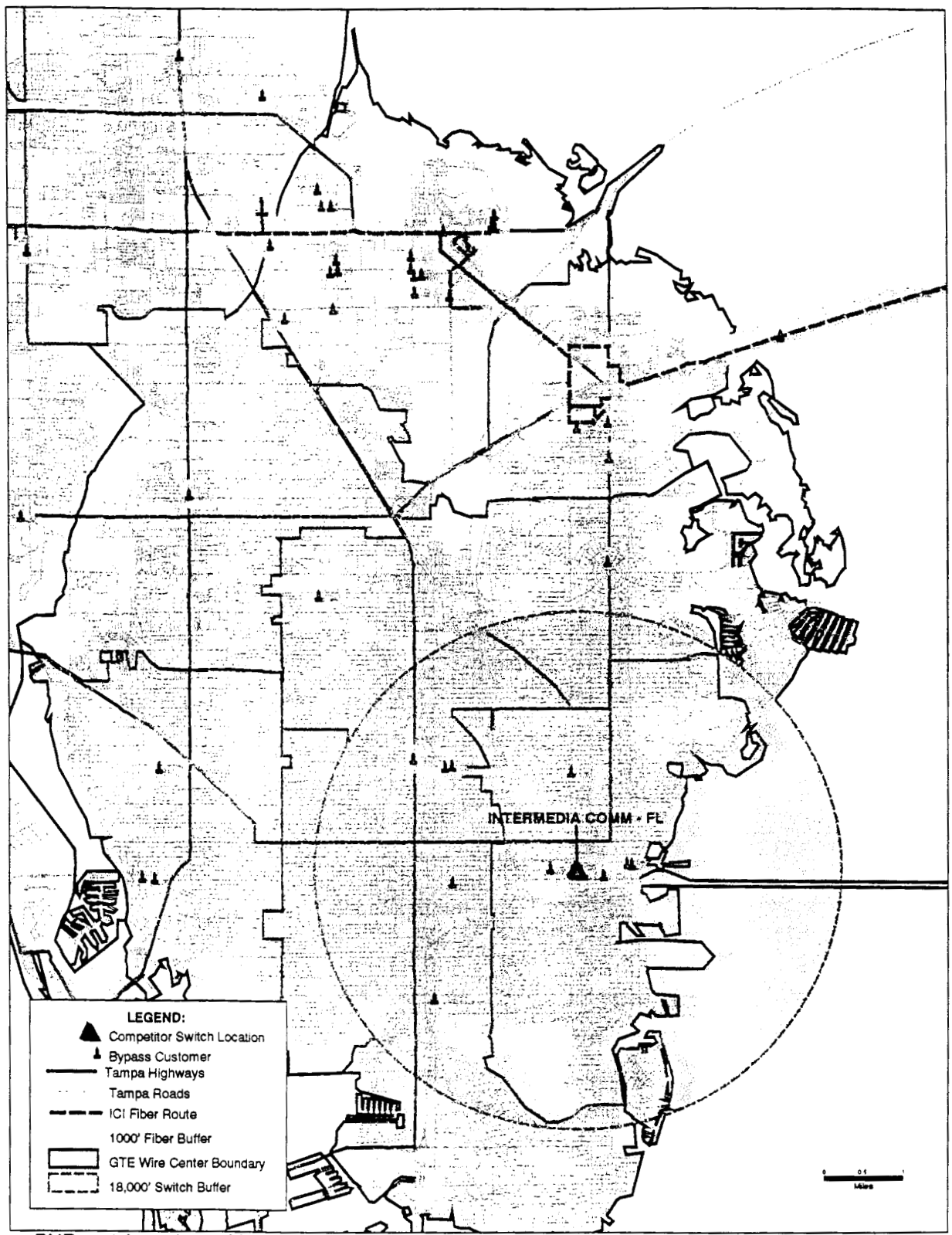
1.6 GTE Franchise Area - Tampa, Florida: CLEC Bypass Customers And Addressable Market



PNR and Associates, May 1999

GTE Comments in CC Docket No. 96-98

1.7 GTE Franchise Area - St. Petersburg, Florida: CLEC Bypass Customers And Addressable Market



PNR and Associates, May 1999

GTE Comments in CC Docket No. 96-98

The following tables summarize the addressability statistics for the greater Tampa area:

Docket No. 990649-TP
Direct Testimony of Dennis B. Trim
Exhibit DBT-4, Page 50 of 50
August 11, 1999

Resale	Loop UNE	Bypass	Bypass Percentage of Wholesale Share
31,734	37	16,761	34.54%

ADDRESSABLE MARKET

	IMMEDIATE	RADIUS
TOTAL STATISTICS		
Addressable buildings	59,630	203,119
Total buildings	502,942	337,425
Percent of addressable buildings	11.86%	60.20%
Addressable customers	127,220	315,264
Total customers	813,597	526,641
Percent of addressable customers	15.64%	59.86%
BUSINESS STATISTICS		
Addressable business buildings	13,858	28,347
Total business buildings	65,347	43,480
Percent of addressable business buildings	21.21%	65.20%
Addressable firms	29,670	49,498
Total firms	109,047	71,704
Percent of addressable firms	27.21%	69.03%
RESIDENTIAL STATISTICS		
Addressable residential buildings	47,931	180,456
Total residential buildings	451,647	303,588
Percent of addressable residential buildings	10.61%	59.44%
Addressable residences	97,550	265,766
Total residences	704,550	454,937
Percent of addressable residences	13.85%	58.42%