PUBLIC VERSION

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Implementation of the	)	CC Docket No. 96-98
Local Competition Provisions	)	
in the Local Telecommunications Act of 1996	)	

DECLARATION OF ANTHONY FEA
AND WILLIAM J. TAGGART III
ON BEHALF OF AT&T CORP.

1. My name is Anthony Fea. My business address is 429 Ridge Road, Dayton, New Jersey. I am Division Manager with AT&T Local Network Services, the organization within AT&T Corp. that provides local service (either entirely or partially through the use of AT&T's own facilities) to AT&T business customers of all sizes. Among the responsibilities I have in my current position is to oversee the planning of AT&T's local optical network in the Northeastern part of the United States. In general, it is my responsibility to assist in the development of a capital investment plan which optimizes the use of limited capital dollars, while at the same time appropriately controlling expenses and allowing for a return on the company's investment. I am a 1986 graduate of Stevens Institute of Technology, with a B.S. in Electrical Engineering. Since obtaining my degree, I have worked at a number of telecommunications firms including Bell Atlantic (now Verizon), Telecordia Technologies (BellCore), and most recently TCG and AT&T.

2. My name is William J. Taggart III. My business address is 900 Route 202/206 North, Room 2A108, Bedminster, New Jersey. I am employed by AT&T Corp. as Division Manager, CLEC Business Development and Management. I this position, I am responsible for managing

AT&T's relationship with competitive local exchange carriers ("CLECs") for purchase of switched access and for local-to-local interconnection agreements. This includes developing, negotiating, and managing contracts with national and regional CLECs.

AT&T Service

3. AT&T connects its customers to the AT&T network using two distinct methods.[1] The first method, referred to as "Type I" provisioning, provides a connection to the AT&T network entirely on AT&T owned and operated facilities. The second, and by far the more common, provisioning method is referred to as "Type II" provisioning, where AT&T leases from another carrier some portion of the loop and transport facilities used in providing connectivity to the end-user's premises.

4. Traditionally, when AT&T enters a new geographic area, it first builds backbone and high-capacity facilities, and uses lower capacity (*e.g.*, DS1 or DS3) facilities from other carriers, almost always the incumbent to access customers. In Type II provisioning, AT&T has determined that it does not have or cannot feasibly build facilities all the way from the AT&T point of presence ("POP") to an end-user's premises. Among the factors that enter into the decision not to use AT&T facilities are cost, the availability of construction pre-requisites (such as obtaining rights of way and the availability of collocation facilities), and the feasibility of building within the time frame required by the customer. When employing facilities of others (*i.e.*, in provisioning Type II service), AT&T's practice is to look first for an alternative facility

[1] AT&T's current local network includes switches, as well as outside plant (including both backbone network fiber optic rings, and access to specific buildings and customers) in a number of different markets nationally. AT&T also uses "Class 4" switches to provide local service through its Digital Link service.

provider other than the incumbent local exchange carrier ("ILEC"), for example a competitive access provider ("CAP") or another CLEC.[2] When no alternative facilities providers are available, AT&T will lease those facilities from the ILEC.

5. Although it is generally preferable to provide service entirely on AT&T's own network,[3] there are a number of constraints to doing so. The lack of alternative facilities is readily demonstrated by AT&T's use of ILEC facilities to provide interoffice transport. Today, AT&T has special access circuits into approximately 11,500 unique local serving offices ("LSOs"), and in general, each LSO is connected to two AT&T POPs. There are approximately 20,900 unique LSO-POP combinations.[4] Duplicating these facilities would be almost impossible, both because of the sheer numbers of the facilities required to connect these LSOs to the AT&T network and because many of these facilities are very low capacity circuits.

6. The vast majority of AT&T's customers are therefore served using a Type II provisioning arrangement. Today, for the "backbone" portion of AT&T's local network,[5] AT&T almost never self-provides DS1 transport and self-provides DS3 transport in only **[proprietary**

[2] In cases in which there are alternate suppliers, those suppliers must provide service at quality and service levels which are based on Telcordia and other industry standards.

[3] The preference for providing service entirely over AT&T's own facilities is based on the ability to control the service from end-to-end, thereby avoiding reliance on other carriers to maintain service quality and enabling AT&T to provide the best customer experience. Thus, when AT&T serves a customer, its first choice is to use a Type I arrangement. However, such arrangements are only available to serve a tiny fraction of AT&T's business customers.

[4] The vast majority of these facilities (approximately 96 percent) connect to the RBOCs (SBC, Verizon, BellSouth and Qwest).

[5] "Backbone" is defined as the part of the communications facility that connects primary nodes. It is designed to connect lower speed channels or clusters of dispersed users or facilities.

begin] ****** [proprietary end]** of the time. For the "tail" portion of the network,[6] AT&T provides approximately **[proprietary begin] ******** [proprietary end]** of its DS1s entirely on its own network.[7] The remaining service is provided almost entirely by utilizing the facilities of the ILECs.[8]

7. The inability to self-provision these facilities is based on a variety of factors. First, many LSOs do not have sufficient volume to justify the cost of building a facility. Indeed, in 70 percent of these LSOs, there is insufficient traffic to fill a DS3 facility to reasonable levels of utilization – and thus, in the vast majority of LSOs facilities-based entry is essentially infeasible. Where sufficient volumes do exist, AT&T must have the collocation necessary to connect self-provisioned facilities.[9] But even where AT&T is collocated, over **[proprietary begin] ******** [proprietary end]** of its collocations utilize exclusively ILEC inter-office transport facilities.

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[6] "Tail" is defined as the facility providing connectivity between the customer's premise and the local serving office.

[7] AT&T provides **[proprietary begin] ******** [proprietary end]** of its DS3 tails on its own network, but DS3s constitute a very small percentage of the total number of tails.

[8] ILECs provide more than **[proprietary begin] ******** proprietary begin]** of DS0 tails, more than **[proprietary begin] ******** [proprietary end]** of DS1 tails and about **[proprietary begin] ******** [proprietary end]** of DS3 tails employed by AT&T. Moreover, ILEC facilities are used for more than **[proprietary begin] ******** [proprietary end]** of DS1 and more than **[proprietary begin] ******** [proprietary end]** of DS3 backbone transport.

[9] AT&T has recently contracted to acquire a number of collocations previously held by NorthPoint Communications. While these assets, once acquired, will increase the percentage of LSOs in which AT&T has a collocation, the opportunity does not exist today. Moreover, the NorthPoint collocations were used and equipped only for advance services. Additional or replacement equipment will be needed to retrofit those locations for many of the services AT&T provides. More significantly, since NorthPoint was not a facilities-based carrier, the company relied on leased third party facilities, the vast majority being leased from the incumbent. Therefore, AT&T is unable to predict the impact of those collocations on its self-provisioning capabilities.

8. There are a number of other factors that preclude using a Type I arrangement in many offices, including: (1) the construction difficulties detailed below; (2) prior volume and/or term commitments that make it uneconomical to convert facilities because of termination liability penalties;[10] (3) exhaustion of collocation capacity; and (4) distances between the LSO and POP that are too long to make construction economically feasible.

Construction of Transport Facilities

9. New network construction is very time consuming. Often such construction requires cooperation from the local authorities, other carriers and building owners (for loop access to the building), and can take months, and even years to complete. But customers typically seek service in timeframes measured in days or weeks. As a result, when faced with significant delays due to construction, AT&T must rely on other suppliers who are able to meet those time constraints. The choice is generally a choice of one – the ILEC. This is especially true because the construction process often is fraught with hurdles that slow, and at times can stop, deployment.

[10] As demonstrated in this declaration, CLECs have typically purchased special access rather than UNE combinations under duress, because that has been the only option available to them. Therefore, CLECs have been over-paying for these functionalities – and incumbents have been receiving unjustified windfalls – for many years. Consequently, CLECs should be provided a "fresh look" to convert their special access services to UNE combinations, without any of the termination liabilities that incumbents have unilaterally imposed. At the very least, the Commission should recognize that when CLECs convert special access services to UNE combinations they are not taking business away from the incumbents; rather, they are only paying rates that more closely resemble those they should have been paying for use of those same facilities for many years. Accordingly, any termination liabilities should, at a minimum, be reduced proportionately to reflect the fact that CLECs will continue use the incumbents' facilities.

10. In particular, deploying new dedicated transport facilities involves a sequence of critical steps in which failure or delay in any one could stop a build from continuing. First, a CLEC must negotiate a right-of-way agreement with the local municipality in which the CLEC seeks to provide service. Municipalities often demand exorbitant fees and other onerous conditions. Although a typical franchise agreement may take between four and six months to negotiate, AT&T has franchise negotiations (and accompanying litigation) that remain unresolved after several years. Further, even after a franchise agreement is reached, a municipality's ratification process can add as much as 60-90 days before construction can begin. These types of problems are not isolated incidents; AT&T has experienced such delays and additional costs across the country. Example of such cases are reflected in Attachment 1.

11. To avoid these delays, CLECs have three choices: they can accept these burdensome conditions; they can use the existing facilities of the incumbent; or they can forego competing to provide service to customers. But none of these alternatives put a CLEC in a practical position to compete.

12. In such circumstances, the CLEC not only must negotiate with local municipalities, but it is likely the CLEC will also need to negotiate additional agreements with other parties, including the ILEC. Such agreements may address the use of existing rights-of-way capacity or developing new right-of-way capacity on the CLEC's desired route. And even the conclusion of negotiations does not necessarily signal an end to the delays before construction can begin. Many municipalities require carriers to build facilities jointly (*e.g.*, coordination of street digging), and some municipalities place restrictions or moratoria on new

builds. All of these requirements add complexity, cost and delay, to a CLEC's ability to both obtain a permit and to initiate construction.[11]

13. Construction typically involves deploying a "SONET ring" architecture (or some other means of network redundancy). A "SONET ring" is a form of 'self-healing' network architecture that provides unique reliability for customers because it employs diverse routing to ensure continued service even when particular segments of the ring are accidentally cut or experience other technical difficulties. Generally, this diverse routing is accomplished by constructing two physically separate fiber paths in a closed chain or "ring." The key fact to note is that the route diversity often results in doubling the difficulties a CLEC must overcome before the project even begins. To implement a redundant network design, CLECs often need multiple rights-of-way, and may have to negotiate access to each of these rights-of-way with one or more entities, including municipalities, incumbent LECs or other parties.

14. CLECs must also obtain appropriate collocation in order for self-constructed interoffice transmission facilities to be of much value. Virtually all loops terminate in ILEC offices and, in order to connect these loops to the CLEC's network, some form of collocation is required. Obtaining collocation is also accompanied by its own set of challenges, including lengthy ILEC application processes, unclear space disposition or LSO space exhaustion, and significant space preparation and use charges. For example, recent audits conducted in conjunction with the SBC/Ameritech merger and Verizon/GTE merger indicate that those

[11] It is important to note that even in circumstances in which these provisions are presently applied equally to all carriers, the ILEC is likely to have obtained its franchise and accompanying benefits prior to the imposition of the current requirements. This often leads to situations where municipalities seek significant payments or benefits from the CLECs that were not originally imposed on the ILEC (*e.g.*, requiring part of the CLEC's network to be assigned to
(continued . . .)

carriers have not posted space exhaustion notifications on a timely basis. Other factors that impact collocation costs include distant placement of collocation space (*i.e.*, within an LSO but far from the frame) that may require added copper connectivity; unreasonable power delivery and riser charges; ILEC imposition of government-mandated building code upgrades that should be covered by the ILEC (*e.g.*, asbestos removal and compliance with Americans with Disabilities Act); ILEC premium charges for "preferred" contractors and consultants; and charges for unneeded or unnecessary services or quantities of service.[12]

15. Finally, CLECs must purchase or obtain access to transmission equipment (*e.g.*, multiplexers, concentrators, light terminating equipment), and then deploy, activate, and test the equipment on an end-to-end basis. Even at this stage, disputes can arise with the ILEC regarding whether or not the ILEC believes that the equipment qualifies for collocation.

Construction of Loop Facilities

16. The preceding hurdles make building interoffice transport a significant challenge. But when facility construction to a customer premise is considered, those hurdles are greatly magnified almost to the extent of impossibility. For example, because loops generally serve only

(. . . continued)
the municipality). It is also not uncommon for municipal ordinances to allow existing providers, *i.e.*, the ILEC, to be "grandfathered."

[12] For example, several CLECs, including Convergent and COVAD, along with ALTS, have filed complaints both at the state and federal level regarding Verizon's collocation power charges. In apparent response to those complaints, Verizon filed modified tariffs in both Massachusetts (Feb. 11, 2001) and New York (March 29, 2001) significantly lowering those rates. Other examples of unnecessary ILEC conditions, including requirements for a POT bay as part of the interconnection architecture, were identified in the January 29, 2001, Arthur Anderson report to the Commission on Verizon's compliance with the Commission's collocation requirements.

a single location and only one or a few customers at that location, it is more difficult to accurately identify instances where the potential demand, costs to build and difficulty of building indicate a wise investment. Moreover, in addition to all the impairments involved in deploying interoffice transport, the added requirement of negotiating building access applies to the construction of loop facilities. Often, due to the customer's urgent need for service, it is impractical or impossible to negotiate access to the entire building (thereby requiring additional negotiation addressing access and compensation) with the result that only "fiber to the floor" can be deployed. This clearly limits a CLEC's ability to serve other customers in the same building.

17. Although this may seem to be the end of the process, it is not. It is only the beginning. Once all the preceding steps have been successfully completed, and assuming the customer is still willing to wait for service, the CLEC is then in a position to begin construction of the necessary facilities. As with any type of construction project, unforeseen problems, including labor and equipment shortages, can delay completion.

18. Even under ideal conditions,[13] it takes a minimum of twelve months for a facility to become "revenue ready" – *i.e.*, ready to provide service to a customer or customers subtending a particular central office.[14] However, in many cases the difficulties described above can add

[13] Ideal conditions include prior existence of rights-of-way or circumstances not requiring such authorization; availability of collocation space; all construction occurring without unforeseen delays; and ready access to the customer's premises within a building. In our experience, the chance of all of these conditions being satisfied are almost nil.

[14] The complexity of this process, combined with the significant expense, creates a substantial disparity between ILECs and CLECs, and provides ILECs with a considerable competitive advantage. For example, because ILECs have already developed an extensive interoffice facility network, they generally do not need to seek additional rights-of-way. Where fiber has already been deployed, ILECs can add substantial capacity by merely changing electronics in the central office. This is far less cumbersome than the steps that a CLEC must complete to construct the same amount of capacity.

months, and even years to the process. Thus, at times AT&T is forced to abandon plans to build within a market because the obstacles are simply too great.[15] On the other hand, to the extent ILECs are required to modify existing plant to serve a particular customer, they are generally limited only by factors within their own control – for example, upgrading electronics to increase fiber capacity, work-force availability considerations or pulling cable through conduits that already exist.

19. These circumstances also underscore the fact that the incumbents' estimates of how many buildings are on CLEC networks are misleading. A carrier does not truly have a building "on-net" unless it can obtain space in the vicinity of the building terminal (*i.e.*, a means to cross-connect to facilities serving all the customers in a premises), or in the alternative it is provided space and on-premises conduit/riser capacity to place its own equipment and run its own facilities. Rather, the competitor may have only one particular *customer* on-net, which occurs when the CLEC can only run fiber only to the floor where a particular customer is located. As a result, multiple carriers may be serving a single building, but only the ILEC has the unrestricted ability to serve all the end-users within the building. Furthermore, where only fiber-to-the floor exists in what is called an on-net building, all of the same difficulties in securing essential building access may be encountered when adding any subsequent customers in the building.

[15] In a recent case, AT&T sold an AccuRing, one of its high speed products, to a major banking institution to be served off an existing local switch. However, when AT&T began the steps for construction of the facility, it became apparent that in order to complete the facility, AT&T would need a right-of-way in Colony, N.Y., a location in which it had not previously built. After substantial negotiations with the municipality, AT&T was forced to stop construction plans. Although AT&T is now challenging the municipality's franchise requirements in court, there is little likelihood of being able to serve the original customer because of the lengthy delay caused by the dispute.

20. As stated earlier, customers will not wait extended periods of time to obtain service, because they usually seek new services or added capacity to address immediate business needs. Because of its prior (and current) position of being virtually the only provider of local services, the ILEC generally stands ready and waiting to provide service over its existing facilities. Although a customer might prefer to use an alternative provider, the need for service immediately often trumps that preference. This impairment to the CLEC's ability to compete is somewhat mitigated (but not completely eliminated) when the CLEC can use unbundled network elements ("UNEs"), particularly loop and transport combinations, so it can provide service "now" while determining if a build to that customer or building is feasible.

Availability of Capital

21. It is also important to consider that new construction also requires significant up-front capital investment and, as a result, the CLEC must obtain a source of funds for the project. The decision to invest capital in new construction is based on fairly simple business case principles. AT&T balances the amount of money needed for the construction, the availability of capital, the average payback time on the capital, the maximum contributions that could result from such construction, and the potential risks and returns of other projects competing for the same limited construction dollars. As part of the business case, AT&T considers its existing facilities, including LSO collocations, and how new construction will maximize the usage of those facilities. AT&T then must balance these factors against both the customer's willingness to wait for facilities, and the willingness of a customer to enter into a term contract sufficient to meet AT&T's cost recovery guidelines.

22. But a sufficient pool of capital is often difficult to obtain at rates that would conform to prudent business practices. Moreover, capital that is available will generally be

allocated first to ventures that have the potential to generate new revenues before being made available to cost reduction/service improvement opportunities. As a result, construction projects to replace existing leased facilities will generally be deferred in preference to other projects that gain new customers or increase spending by existing customers. Even then the construction project must have higher potential returns (lower payback periods) and/or lower risk (uncertainty of cost savings should access prices drop) compared to other projects competing for scarce capital funding. In our experience, the planned local construction program has always exceeded the available capital, typically by as much as **[proprietary begin] ******** [proprietary end]** of funding available at the beginning of the budget year. However, due to unanticipated needs to address customer demands and/or in order to better assure the ability to meet short-term earnings expectations of the financial markets, by year's end, the funding available for projects is typically cut by another **[proprietary begin] ******** [proprietary end]**.[16]

23. This year's changing economic environment has also radically changed both the availability and cost of capital. In the past, both the capital markets and vendors served as ready sources of capital, but the downturn in the economy, coupled with the now almost routine failures of CLECs, have made investors wary. Likewise, vendors (including Nortel and Lucent), faced with their own business uncertainty, have dramatically changed contract terms from consignment sales of equipment to requiring cash up front on all purchases. This change alone is

[16] Even in circumstances where the economic threshold for self-supply is met, there are factors that may preclude construction. For example, in some instances, the incumbent is providing service under term or volume discount arrangements that include substantial termination penalties that make switching to a CLEC prohibitively expensive. In other instances, AT&T is unable to use its own facilities because of limited collocation space or collocation equipment capacity.

likely to reduce AT&T's purchases of some types of equipment by as much as **[proprietary begin] ******** [proprietary end]**

Extent of Facilities Deployment

24. The most important factor in the business case, and the most difficult to judge, is the revenue potential of a particular LSO, or even a particular customer/location. Although, relatively speaking, the costs are more straightforward to identify, they are still varied and difficult to project accurately. Among the costs that are highly impacting to the business case profitability are: (1) rights-of-way costs; (2) the type of construction needed (*e.g.*, conduit, underground, aerial, etc.); (3) the length of the facility; (4) availability of collocation space; (5) the complexity of connecting to the existing network; and (6) the feasibility of providing redundancy or diversity.

25. Much has been made of the existence of fiber within many of the larger markets in this country. However, the mere fact that fiber exists within an MSA does not eliminate the CLECs' need for access to the ILEC's facilities at cost-based prices. Usable fiber must be connected to customer loops. But loops invariably terminate in an ILEC LSO. In most cases, however, the CLEC's fiber does not extend to the relevant LSO. Thus, in order to connect the loops (that terminate in the LSO) to the fiber (that is outside the LSO, or at least outside the particular CLEC's collocation), another facility is required. This facility is often difficult or impossible to obtain. Assuming the so-called available fiber terminates outside the LSO, the CLEC would need a non-ILEC facility connecting its collocation to the node outside the LSO where the fiber was available. However, delivery of such a facility involves all the issues of self-construction and, if it were so simple and easy to build, the CLEC would likely build the facility directly to its own network. On the other hand, the fiber could terminate and be available in

collocation space of another party within the LSO. This is unlikely for two reasons: (1) the ILECs prohibit collocation of transport-only carriers, and (2) the ILECs refuse to provide CLEC-to-CLEC cross-connects under the terms of interconnection agreements.[17] Thus, even when fiber may be in proximity to the LSO, the CLEC is largely presented only with the choice of building itself or buying facilities from the ILEC.

26. In its comments, BellSouth refers to CLEC fiber deployment in 11 cities throughout its region as evidence of the availability of alternative special access capacity. We examined two MSAs identified by BellSouth in which AT&T has fiber facilities (Chattanooga and Winston-Salem/Greensboro). Although BellSouth may hope that the Commission may accept the presence of a fiber ring in an MSA as demonstrating universal connectivity, such is definitely not the reality. AT&T's fiber ring in Chattanooga connects fewer than **[proprietary begin] ******** proprietary end]** of the LSOs in the MSA, and the ring in Greensboro/Winston Salem connects fewer than **[proprietary begin] ******** [proprietary end]** of the LSOs in that MSA. *See* Maps attached hereto as Exhibit 2. The majority of the LSOs are a significant distance from AT&T's existing SONET rings, and therefore difficult and expensive to reach. This is true not only in these MSAs, but in most of the MSAs in which AT&T has constructed fiber rings.

27. Even in those instances where AT&T can subsequently deploy its facilities, impediments to competition still arise. In cases where AT&T has sought to roll existing access circuits to AT&T-provisioned facilities, AT&T has often encountered resistance from the ILECs. For example, AT&T recently identified a number of DS3 facilities in the Verizon-West region

[17] We understand certain ILECs will provide cage-to-cage connection, but only pursuant to access service arrangements at above cost rates.

that can be placed on AT&T facilities. Although Verizon has not rejected AT&T's request, the process Verizon imposed has severely limited AT&T's ability to make the transition. Specifically, Verizon-West is requiring that AT&T issue an Access Service Request ("ASR") for each DS0 facility. If Verizon prevails, AT&T will need to issue approximately 21,000 ASRs to roll existing leased facilities to self-provisioned facilities. The sheer number of orders required by Verizon is incredibly burdensome. Beyond this, Verizon's resistance to treating the activity as a managed project raises serious concern that this process is likely to cause significant customer outages during the transfer.

28. When a carrier initiates service and then seeks to transfer the service arrangement from a leased facility from the ILEC to a self-provided or CAP/CLEC-provided facility, it already must deal with two impediments. First, such rolls require the carrier to incur additional expenses to perform the physical work and coordination. Many times, unless significant volumes of service are to be moved, the cost of the move may more than consume the potential savings resulting from use of non-ILEC facilities. Even where the economics are attractive, the carrier must convince the customer to release the circuit (*i.e.*, permit the service to be interrupted for a scheduled, and hopefully brief, period). Unfortunately many customers are unwilling to provide a release (and all customers on a facility must provide the necessary releases) because they do not want to take on the risk of a service disruption. Experience has shown that even when presented with reasonable financial incentives, **[proprietary begin]** ******** **[proprietary end]** of customers will not agree to a release.

29. Given all of these limitations, in order for AT&T to meet the demands of its customers, it must rely on other carriers to provide access, and particularly the ILECs, in **[proprietary begin]** ********** **[proprietary end]** circumstances.

30. With respect to loop facilities to individual buildings, it should come as no surprise that alternatives to the ILEC are rarely available. Government figures show that there are over 3 million buildings or business locations nationwide.[18] In stark contrast, AT&T has only been able to provide direct (*i.e.*, non-ILEC) access to slightly more than **[proprietary begin] ***** [proprietary end]** buildings. Moreover, even where AT&T has built its own facilities into a building, about **[proprietary begin] ****** [proprietary end]** cases involve "fiber to the floor" arrangements that do not enable AT&T to use its own facilities to serve all customers in the building. Bottom line, AT&T reaches only a fraction of a percent of all commercial buildings using non-ILEC facilities and, of those, AT&T can obtain unrestricted building access using its own facilities in a tiny fraction. Given that ILECs have access to virtually all buildings right now, this situation hardly supports a finding that reasonable alternatives exist outside the ILEC network and that there is robust facilities-based competition to the ILECs' unbundled network elements.

31. The very low probability of all the preceding factors resolving themselves in a satisfactory manner also plays a significant role in the speed at which AT&T can increase the number of buildings reached. In fiscal year 2000, AT&T identified approximately **[proprietary begin] **** [proprietary end]** buildings nationally as prime candidates for direct connection to the AT&T network. Less than **[proprietary begin] ******* [proprietary end]** of these candidate buildings, however proved to be within reasonable proximity to AT&T's existing network so that they had a sufficient potential for an economical build.[19] But even this much-

[18] See Declaration of C. Michael Pfau, ¶¶ 42-43 (April 30, 2001).

[19] The per-mile cost of network construction is approximately $200,000-$300,000. *See, e.g.*, "Bullish on Broadband," Dain Rausher Wessels, p. 41 (June 8, 2000); Affidavit of Beans, Harris & Stith, ¶ 37 (attached to AT&T Comments filed May 26, 1999) ("Significantly, the cost of (continued . . .)

reduced list does not represent what was ultimately built. By the end of 2000, AT&T achieved only a **[proprietary begin] ******** [proprietary end]** success rate (for a list already reduced by **[proprietary begin] ******* [proprietary end]**) in placing buildings on its network using its own facilities.

Limitations on Using Third Party Suppliers

32. A number of other factors also account for AT&T's infrequent use of third-party alternatives.[20] As a first consideration the coverage area, or footprint, of alternative suppliers tends to be quite limited. In most areas the ILEC is the only provider with facilities. Further, AT&T has found that in markets where a viable alternative is available, it often overlaps AT&T's own facilities. Thus, there is a false impression that the geographic coverage of the CLECs' networks is greater than it actually is. Furthermore, AT&T generally seeks alternate providers that can provide facilities nationwide, or at least in a large number of locations. This preference is based on the fact that the infrastructure costs associated with the negotiation and oversight of an alternate supplier is large, and to be economical it must be justified by a large

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placing new conduit and fiber, which is the dominant mode of placement in densely populated areas, can easily exceed $200,000 to $300,000 per mile"). Due to this high cost, AT&T typically seeks to add buildings that are within that 1 mile radius of its network first. Other factors, including building ownership and the ability to obtain common space are also considered.

[20] AT&T has undertaken a comprehensive plan to convert interoffice facilities to alternative providers whenever possible. While AT&T continues to look for additional opportunities for such conversion, in general AT&T has taken advantage of such alternatives where possible.

potential service area. Nevertheless, AT&T evaluates alternatives on a case-by-case basis and may use a small-scope supplier in order to accommodate specific customer requirements.[21]

33. Another practical limitation to the use of alternate supply is that AT&T requires all of its suppliers to comply with Telcordia standards (or other generally recognized industry standards) and meet Direct Measures of Quality ("DMOQs") that include financial consequences for failure to perform (which generally the ILECs resist). Typically, the non-ILEC suppliers that AT&T ultimately uses have significantly better performance against the DMOQs,[22] but some potential alternative suppliers either cannot or are unwilling to commit to prescribed performance measures.

34. Alternative suppliers also must be able to meet standards for pre-ordering, ordering, provisioning, maintenance and repair and billing. Although AT&T has a strong preference for the use of mechanized operational support systems, suppliers must at least have procedures that meet industry minimum standards. It would be impractical for a national competitor to deal with a variety of alternative suppliers unless there were some reasonably standardized means for exchanging critical information and monitoring interrelated business

[21] As mentioned above, AT&T prefers to use its own facilities and those of an alternative provider over those provided by an ILEC. AT&T maintains a database of its own facilities and the facilities of 12 pre-qualified vendors that have access to approximately 22,000 commercial buildings. The database, referred to as CLASS, uses customer addresses to identify locations that are candidates for non-ILEC access. In addition to those suppliers, AT&T uses other sources (including publicly-owned facilities and the facilities of very small suppliers) on an individual case basis. Further, AT&T continues to identify other sources of alternative supply to include in this process.

[22] For example, AT&T's monitoring of suppliers shows that ILEC suppliers have a failure frequency of 15.5 percent as compared to a <5 percent failure rate for alternative suppliers. This difference is probably attributable to the fact that AT&T's contracts with alternative suppliers often include specific monetary penalties for failure to meet required DMOQs. Even with these conditions, alternative providers can prove unsatisfactory. In the past, AT&T has had to place a moratorium on using its largest alternate provider because of serious performance issues.

operations. While the ILEC can easily comply with these requirements – and well they should because they drove their development – not all alternative suppliers can do so, or at least not on a mechanized basis.

35. Further, AT&T has found that a number of potential alternative suppliers are merely reselling the facilities of a third-party, often one AT&T already uses or that AT&T is unable to pre-qualify. As a result, reported counts of on-net buildings do not necessarily reflect buildings served through the carrier's own facilities or even non-ILEC facilities. More importantly, because AT&T wants to control the quality of the services it offers, it requires a direct relationship with the owner of the facilities it uses. Thus, unless an alternative supplier truly provides its own access to a location, AT&T generally will not utilize the vendor.

36. Price, of course, is always a consideration. While the price from alternative suppliers for individual units of capacity may often be attractive, sometimes the surrounding terms and conditions may eliminate a potential supplier. For example, some potential suppliers have sought pre-payments to "reserve" capacity or minimum spending commitments (*e.g.*, of the total national spending) that are inconsistent with the scope of coverage offered by the potential supplier. Thus, a "good price" may not always turn out to be a truly competitive price, or at least an unencumbered one.

37. Finally, in recent months a new concern has surfaced with respect to the use of alternate suppliers: the risk that suppliers will withdraw from the market, file for bankruptcy protection or liquidate assets in a manner that invalidates AT&T's contracts. At this time, two of AT&T's pre-qualified vendors have filed for bankruptcy, and a third was acquired by a carrier unwilling to honor the terms of AT&T's contract. Whether or not justified, retail customers are also concerned by these events. As a result, they may specify that AT&T may only use its own

facilities or those of the ILEC. Thus, the existence of other suppliers to a building may be rendered moot by customers' refusal to accept services that employ alternative access.

Prohibition on Co-mingling

38. Network engineering principles, common sense, and the realities of the competitive marketplace require that a carrier's telecommunications network be designed and utilized in the most efficient manner. Not only AT&T but also other carriers, including ILECs, seek to use existing facilities in a way that avoids unnecessary duplication.[23] These facilities reflect largely fixed costs that must be utilized to their maximum potential if a profit is to be realized. Naturally, AT&T seeks to use its own network to its maximum capacity, and configures both its own facilities and the facilities it leases from other providers to make this possible. AT&T's success in this endeavor is essential to avoid unnecessary costs and to ensure that traffic on its network flows efficiently.

39. Unfortunately, ILEC prohibitions on mixing access services and UNEs on the same facilities present a significant impediment to CLECs' ability to attain reasonable economies of scale when they cannot build their own facilities (or obtain them from other non-ILEC suppliers). Although we understand that historic pricing principles, including special access charges, have, in the past, provided an artificial distinction between facilities used for local and long distance service, these distinctions are the function of regulatory control and contrary to

[23] In general, networks are engineered to meet two specific goals: (1) handling traffic at peak levels; and (2) meeting the required grade of service. In determining the size of a facility, engineers rely on standard industry tables (referred to as the Poisson and Erlang tables) that provide the specifications for sizing. Further, efficiency planning relies on the use of larger facilities, rather than multiples of smaller facilities. No network is built to accommodate 100 percent of the lines being used 100 percent of the time. By applying accepted 'traffic theory,' engineers are able to size facilities based on the probability of traffic volumes over the course of time, without considering the regulatory classification or jurisdiction of the service.

efficient network design principles. When configuring a network and making decisions regarding the size and number of facilities needed to optimize network performance, the type of service or class of customer for the communications carried on the facilities makes no difference. In essence, an engineer views all traffic as a stream of electrons (or photons), with intervening spaces of dead time when no communication is occurring. The engineer's objective is to get as many electrons or photons as possible to pass over a particular facility per unit of time while still maintaining the integrity of the communications. This ability is reduced substantially by regulatorily sanctioned use restrictions and prohibitions on co-mingling.

40. We understand that due to prior Commission orders, CLECs are limited to the use of UNE combinations for special access services to those situations in which the requesting carrier uses the combinations to provide "a significant amount of local exchange service" to a particular customer.[24] In addition, we understand that the Commission's use restriction orders prohibit "co-mingling" or the otherwise technically feasible linking of loops or loop-transport combinations with higher capacity special access services. The result is that CLECs must configure their networks in a manner that is contrary to best engineering practices and inconsistent with the comparable use of facilities by ILECs. This serves only to increase CLEC unit costs vis-à-vis the ILEC, which already has massive economies of scale that CLECs cannot hope to reproduce in the near term.[25]

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[24] We are limiting our discussion of the Commission's orders to the issue of co-mingling, and do not address the practicality of the "safe harbors" defined by the Commission in its Clarification Order issued June 20, 2000. *See* Declaration of Alice Marie Carroll and Cynthia S. Rhodes (attached to AT&T Comments dated April 5, 2001).

[25] In this respect, the imposition of use restrictions raises the CLEC cost structure and reduces CLECs' ability to be price competitive. Further, these limitations generate inefficient consumption of facilities.

41. The ban on "co-mingling" essentially requires CLECs seeking to use UNEs to create parallel and inefficient networks within the existing ILEC network. Typically, an efficient network configuration hubs and combines low capacity facilities onto larger more efficient facilities, regardless of the nature of the communications carried, so as to reduce cost for all services. Under AT&T's existing practices, all traffic from individual customers is moved from the customer premises to the local serving office (either by DS0 or DS1 facilities), where it is combined with other traffic onto a higher capacity facility (*e.g.*, a DS3) and then either directly connected to the AT&T network or routed to an AT&T collocation within another ILEC LSO, where there are sufficient volumes to permit connection to the AT&T network in a reasonably efficient manner.

42. The most efficient use of these facilities is to fill them all to capacity (*e.g.*, 24 DS0 circuits within a DS1 and 28 DS1 circuits within a DS3) before adding additional facility capacity.[26] By using facilities in this manner, both the CLEC and the ILEC benefit by not requiring part of the existing network to be "stranded" as unused capacity within inefficiently utilized facilities. If only one party – the incumbent LEC – may gain these efficiencies, all other parties are at a cost disadvantage. And this disadvantage is exacerbated when the only party that can maximize the use of its facilities is the very same party that has a cost advantage due to the much larger facilities that it can justify because of its virtual monopoly in the local market. Further, ILECs who have authority to enter the long distance market, and those who will gain such authority in the future, will only add to their economies of scale while their competitors

[26] Of course, due to customer churn, vagaries of demand and the need for maintenance channels, a facility is never utilized to the fullest extent of its capacity. Nevertheless, design objectives generally are to obtain fills in the range of at least 70-80 percent.

would be forced to operate with sub-optimized networks caused by use restrictions and prohibitions on co-mingling.

43. Finally, the use restrictions and prohibitions on co-mingling, which cause over-investment in facilities, make absolutely no sense in light of apparent capacity shortages within ILEC networks. AT&T and other carriers (both local and long distance) routinely face significant delays in the provisioning of UNEs and special access circuits by the ILECs. The most common explanation for such delays is that the facilities requested simply do not exist. As a result, competitors are unable to meet customer demand for new and additional service.

44. AT&T's recent experience can provide a quantitative example of the impact of these out-dated and inefficient regulations. In the SWBT region, SWBT prohibits combining private line services with switched services on the same interoffice transport facility. When AT&T compared the currently leased facilities in Texas and Missouri with what would be required if AT&T could combine such traffic on the same facilities, AT&T found it was being required to spend an additional 30 percent on facilities and paying a penalty that was very conservatively estimated at $2.5 million per year.[27]

[27] This analysis considered the DS3 facilities used for interoffice transport in Kansas City, St. Louis, Dallas, Houston, Austin and San Antonio, and was based on the assumption of engineering for a 70 percent fill rate, and savings of $2,000 per facility. As mentioned previously, this is a conservative estimate because it does not take into account facilities between the AT&T node and the local switch.

Conclusion

45. In sum, capacity from self-supply or alternative providers outside the ILEC network is only available in relatively rare circumstances. In the vast majority of cases, CLECs have no choice but to lease the facilities of the ILEC in order to provide special access service.