ORIGINAL

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Implementation of requirements arising From Federal Communications Commission Triennial UNE review: Location Specific-Review For DS1, DS3, and Dark Fiber Loops and Route-Specific Review for DS1, DS3, and Dark Fiber Transport	)	Docket No. 030852-TP
	)	Filed January 21, 2004

REBUTTAL TESTIMONY AND EXHIBITS OF

GARY J. BALL

ON BEHALF OF THE FLORIDA COMPETITIVE CARRIERS ASSOCIATION

Regarding Dedicated Transport and High Capacity Loops

PUBLIC VERSION

TABLE OF CONTENTS

INTRODUCTION OF WITNESS AND PURPOSE OF TESTIMONY.

Q. PLEASE STATE YOUR FULL NAME, TITLE AND BUSINESS ADDRESS.

A. My name is Gary J. Ball. I am an independent consultant providing analysis of regulatory issues and testimony for telecommunications companies. My business address is 47 Peaceable Street, Ridgefield, Connecticut 06877.

Q. ARE YOU THE SAME GARY J. BALL THAT FILED DIRECT TESTIMONY IN THIS CASE?

A. Yes.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?

A. I am testifying on behalf of the Florida Competitive Carriers Association ("FCAA").

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to analyze and rebut BellSouth's and Verizon's assertions that the self-provisioning and wholesale triggers have been satisfied for certain high-capacity loops and on particular dedicated transport routes, and to respond to BellSouth's claims that numerous customer locations and transport routes satisfy the FCC's rigorous potential deployment requirements.

As I explained in my direct testimony, in the *Triennial Review Order* ("*TRO*"), the FCC determined that incumbent local exchange carriers ("ILECs") must continue to provide CLECs with access to unbundled loops and dedicated

transport at the DS1, DS3, and dark fiber capacity levels ("high-capacity loops" and "dedicated transport"). In reaching this conclusion, the FCC made a national finding that CLECs are impaired without access to high-capacity loops and dedicated transport. Recognizing that there might be individual customer locations or transport routes where competitively provisioned loops and transport have been deployed such that CLECs are not impaired, the FCC developed a procedure known as the trigger analysis ("triggers"). The triggers are designed to give ILECs an opportunity to demonstrate to their respective state commissions that CLECs are not impaired without access to unbundled high-capacity loops or transport at *specific* customer locations or on *specific* dedicated transport routes for specific capacity levels.

A unique characteristic of the triggers is that they focus exclusively on consideration of what currently exists on the specific loop and transport routes at issue. Thus, a decision as to whether a trigger is satisfied may not be influenced by arguments that it may be possible for a carrier to provision a specific loop or provide a transport facility at some point in the future. Any such review of possible future activity is the exclusive province of a potential deployment analysis.

A potential deployment analysis attempts to determine if there are specific situations in which CLECs practically and efficiently could employ functional equivalents of a UNE but have not done so. In such an analysis, the incumbent bears the burden of proof to demonstrate that the national impairment identified by the FCC does not exist in particular circumstances. Specifically, the

incumbent is obligated to show – with business case detail and granularity specific to the particular customer location or transport route under consideration – that a CLEC could self-provide the UNE functionality at thresholds below the national criteria that the FCC established in the *TRO*. (Since the FCC already has established maximum thresholds for the purchase of high capacity loop and transport UNEs, a review of carriers' ability to provision higher levels of capacity is not relevant to the inquiry.) It is important that the Commission err to the side of caution when it considers potential deployment petitions submitted by the incumbent, because an erroneous judgment of what might be (rather than what already is) available to customers would deny those customers access to competitive alternatives.

In my testimony, I will show that BellSouth, through its witness Shelley Padgett, and Verizon, through witnesses Orville Fulp and John White, have grossly overstated the number of enterprise customer locations (*i.e.*, buildings) and transport routes that satisfy the self-provisioning and wholesale triggers. In doing so, I will explain that both BellSouth and Verizon have ignored the FCC's triggers, and have failed to produce evidence on a location- and route-specific basis as required by the *TRO* and the FCC's implementing rules.

Additionally, I will explain that BellSouth's potential deployment analysis is technically flawed, superficial, and based on unsupported or and unsupportable assumptions. BellSouth's potential deployment test also fails to incorporate the FCC's location – and route-specific analysis, and as a result produces completely unjustifiable quantities of both loops and transport routes for which BellSouth

erroneously contends that the Commission should make non-impairment findings and relieve BellSouth of its unbundling obligations.

Q. HOW IS YOUR TESTIMONY ORGANIZED?

A. My testimony is divided into five sections. Section I discusses the FCC's impairment analysis and how it relates to the unbundled loop and transport services necessary for a facilities-based CLEC to effectively compete with the ILECs. In Section II, I explain the self-provisioning triggers that the FCC established for high capacity loops and dedicated transport at the DS3 and dark fiber capacity levels. In this section, I also critique both BellSouth's self-provisioning trigger analysis and Verizon's self-provisioning analysis. In Section III, I explain the wholesale triggers for high capacity loops and transport, and I discuss the requirements (which both BellSouth and Verizon have failed to address in their testimony) necessary to define a carrier as a wholesale provider. In this section, I also critique both BellSouth's wholesale trigger analysis and Verizon's wholesale trigger analysis. In Section IV, I discuss the concept of potential deployment claims for high capacity loops and transport. In this section, I also critique BellSouth's potential deployment analysis. Lastly, in Section V, I describe the transitional issues this Commission should consider if it delists any loops or transport routes in order to protect CLECs and their customers from unanticipated disruption to their services and rates.

Q. WHAT DOCUMENTS DID YOU REVIEW TO PREPARE THIS TESTIMONY?

A. In preparation for this testimony, I have tried to review all of the materials relating to this proceeding, but I have given particular emphasis to the *TRO*, the testimony that BellSouth and Verizon have submitted and accompanying attachments, the discovery requests and responses served by BellSouth, and the discovery requests and responses served by competing CLECs. I also have reviewed certain materials that were submitted to the FCC during its Triennial Review proceeding.

I. THE FCC'S IMPAIRMENT FINDINGS

Q. WHAT DID THE FCC CONCLUDE IN THE *TRO* WITH REGARD TO HIGH-CAPACITY LOOPS AND DEDICATED TRANSPORT?

A. In my direct testimony, I discussed the FCC's findings with regard to high-capacity loops and transport, and I will not reiterate my testimony at length. In sum, the FCC concluded that competing carriers are impaired on a national level without access to unbundled high capacity loops (DS1, DS3, and dark fiber) and transport (DS1, DS3, and dark fiber). *See TRO* ¶ 202; *see* Ball Direct at 7-8.

Q. ARE THE FCC'S FINDINGS ON IMPAIRMENT CONSISTENT WITH TYPICAL CLEC FACILITIES-BASED NETWORKS, INCLUDING THE NETWORKS OF THE CLECS ON WHOSE BEHALF YOU ARE TESTIFYING?

A. Yes, the FCC's findings on impairment are consistent with typical CLEC facilities-based networks. Although CLECs use a variety of entry strategies to provide services to their customers throughout Florida, the CLECs on whose behalf I am testifying use facilities-based networks or depend upon access to UNEs from the ILEC. Generally, these CLECs have constructed one or more fiber rings of varying scope, and connect customers to their network using those fiber rings whenever practical. In a majority of instances, however, the CLEC still will need access to unbundled unbundled loops and loop/transport combinations (*i.e.*, "enhanced extended links", or "EELS") to connect retail customers to its network. These fiber rings connect aggregation points, such as collocation arrangements, and major customer sites to the carrier's switching or hub site. Although a CLEC may possess a facility that passes by two collocations, it will only rarely connect those two collocations to create a service configuration that is functionally equivalent to the dedicated transport UNE.

Facilities-based CLEC networks typically rely on UNE loops to serve the majority of their customers, as the fixed and sunk costs associated with building out loop facilities, as well as the delays in constructing these facilities, would place the CLECs at such a disadvantage that they would not be able to compete with the ILEC's already deployed infrastructure. Regardless of how they are configured, loop facilities are the fundamental component to serving customers. From a CLEC perspective, a loop is the connection between the retail customer's premises and the CLEC's telecommunications network. The CLEC's loop may be a UNE loop that is cross-connected to a self-provided backhaul facility; a UNE-

loop that is obtained in combination with dedicated transport (*i.e.*, an EEL); a UNE-loop that is cross-connected (in a CLEC collocation) to leased transport, which in turn connects to a self-provided facility (a loop provided with hubbed/aggregated transport); or, in rare instances, a completely self-provided facility. The critical point, however, is that CLECs use both loop UNEs and dedicated transport UNEs to provide what is the functional equivalent of a loop in the incumbent's network. Thus, when the Commission considers incumbent LECs' requests to limit access to loop and transport UNEs, the Commission should recognize that the incumbent is seeking to limit the CLEC's ability and options to connect customers to its network, thereby limiting CLEC facilities-based competition.

Facilities-based CLEC networks for connecting customers often are composed of multiple fiber rings. Multiple fiber rings exist for a number of reasons, including the timing and availability of construction funding, unanticipated capacity requirements, and/or building issues (such as rights-of-way access or construction moratoriums) that may have precluded a comprehensive and cohesive build-out strategy. Furthermore, simply because a single fiber cable contains many individual fiber strands, it is not correct to conclude that two offices on a ring are necessarily connected in a manner that allows traffic to pass between them. In fact, it is just as likely that two offices are on different fibers in different sheathes within the cable. Even if the two ILEC offices were on the same strand, it is not generally the case that the CLEC's network is designed to pass traffic between the two offices. Rather, it is likely that the two offices are on

different OC12 sub-systems within the larger OC-48 system. Although it is theoretically possible to connect central offices on different fiber rings (indeed it is "theoretically possible" to connect any two points), transport routes linking the two central offices are not generally provisioned in such circumstances, because, as I stated earlier, the CLEC's primary interest is connecting the retail customer location to its network.

II. SELF-PROVISIONING TRIGGERS FOR HIGH-CAPACITY LOOPS AND DEDICATED TRANSPORT

Q. WHAT IS THE PURPOSE OF THE FCC'S SELF-PROVISIONING TRIGGER FOR UNBUNDLED LOOPS AND TRANSPORT?

A. The FCC allowed ILECs to challenge the FCC's impairment findings on a location- and route-specific basis before state commissions. One of the ways ILECs may demonstrate non-impairment is by showing that CLECs themselves provide, to a sufficient degree, high-capacity loops and dedicated transport on their own. These are known as the "Self-Provisioning Triggers." The Self-Provisioning Triggers are intended to identify those customer locations and transport routes where there exists sufficient deployment of competitively owned facilities to demonstrate that competitors are not impaired without access to unbundled loops and transport, even if the competitors that own those facilities do not make them available to other competitive providers.

Q. WHAT CAPACITY LEVELS ARE SUBJECT TO THE SELF-PROVISIONING TRIGGERS?

A. The Self-Provisioning Triggers only apply to DS3 and dark fiber loops and transport. DS1 loops and transport are not included under these triggers. Neither BellSouth nor Verizon dispute this point.

Q. WHAT MUST BELLSOUTH AND VERIZON DEMONSTRATE TO THE COMMISSION TO SHOW THAT A SELF-PROVISIONING TRIGGER IS SATISFIED?

A. Although I set forth the test in my direct testimony, it bears repeating so as to illustrate how BellSouth and Verizon have failed to satisfy the triggers. For loops, BellSouth and Verizon must demonstrate that there are ***two or more*** unaffiliated competitors (unaffiliated with each other and the ILEC) that have deployed their own facilities at the specific capacity level (DS3 or dark fiber), and that they are serving customers using those facilities. For transport, they must demonstrate there are ***three or more*** competing providers that have deployed their own facilities at the specific capacity level (DS3 or dark fiber), and that they are offering service using those facilities. The triggers must be applied on a location-specific basis and each capacity level must be evaluated separately. *See TRO* ¶ 329. For example, a CLEC that self-provisions at the OC(n) capacity level does not necessarily self-provision at the DS1 or DS3 capacity level. As I discuss below, among other deficiencies neither BellSouth nor Verizon conducted a capacity-specific analysis.

Q. WHAT MUST BELLSOUTH AND VERIZON DEMONSTRATE TO PROVE THAT THE SELF-PROVISIONING TRIGGER IS SATISFIED FOR HIGH-CAPACITY LOOPS AT A SPECIFIC CUSTOMER LOCATION?

A. The ILECs must demonstrate that the two competitive providers:

- Are not affiliated with each other or the ILEC;
- Use their own facilities and not facilities owned or controlled by the other competitive provider or the ILEC; and
- Are serving customers using their own facilities at that location over the relevant capacity level.

See Ball Direct at 22-23 (elaborating on these points).

Q. WHAT MUST BELLSOUTH AND VERIZON DEMONSTRATE TO PROVE THAT THE SELF-PROVISIONING TRIGGER IS SATISFIED FOR DEDICATED TRANSPORT BETWEEN TWO BELLSOUTH WIRE CENTERS?

A. For each of the three competitive providers, the ILECs must demonstrate that:

- They not affiliated with each other or the ILEC;
- Each counted self-provisioned facility along a route must be operationally ready to provide transport into or out of an ILEC central office; and
- Each counted self-provisioned facility terminates in a collocation arrangement.

Q. WHAT ARE THE KEY ISSUES UNDER THE SELF-PROVISIONING TRIGGERS FOR WHICH THE COMMISSION MUST ENSURE THAT BELLSOUTH IS USING THE APPROPRIATE INTERPRETATION?

A. The first key issue is to ensure that the BellSouth and Verizon are defining loops and transport routes in a manner consistent with the FCC, and are applying those definitions appropriately. The FCC's definition is "the connection between the relevant service central office and the network interface device ("NID") or equivalent point of demarcation at a specific customer premises."

The FCC defined a transport route as "a connection between wire center or switch 'A' and wire center or switch 'Z'." The FCC elaborated that "even if, on the incumbent LEC's network, a transport circuit from 'A' to 'Z' passes through an intermediate wire center 'X,' the competing providers must *offer service* connecting wire centers 'A' and 'Z,' but do not have to mirror the network path of the incumbent LEC through wire center 'X'." Thus, the FCC requires that transport service must be offered between the two wire centers in question.

Q. WHAT IS THE APPROPRIATE EVIDENCE THAT BELLSOUTH AND VERIZON SHOULD PROVIDE TO MEET THE FCC'S REQUIREMENT OF OPERATIONAL READINESS FOR THE SELF-PROVISIONING TRIGGERS?

A. The only effective and practical way of demonstrating that a CLEC is operationally ready under the Self-Provisioning Triggers is to produce evidence that the CLEC is actually providing service at the customer location or on the given transport route. This is consistent with the FCC's requirement that evidence be provided that CLECs are *serving* customers using self-provisioned

loop services, and that CLECs *offer service* between two wire centers on a given transport route.

A. CRITIQUE OF BELLSOUTH'S FLORIDA SELF-PROVISIONING TRIGGER ANALYSIS

1. *HIGH CAPACITY LOOPS – ISSUES 1, 2, 3, 5*

Q. HAVE YOU REVIEWED BELLSOUTH'S TESTIMONY CONCERNING THE APPLICATION OF THE SELF-PROVISIONING TRIGGER TO HIGH CAPACITY LOOPS?

A. Yes, I have reviewed the testimony (both initial and supplemental) of Shelley Padgett and the supporting exhibits to the testimony.

Q. WHAT WERE THE CONCLUSIONS OF THE SELF-PROVISIONING TRIGGER ANALYSIS AS PROVIDED BY BELLSOUTH?

A. BellSouth has asserted that 94 customer loop locations satisfy both the self-provisioning and the wholesale facilities triggers. The specific customer locations are listed on Attachment SWP-3 to Ms. Padgett's testimony. In this section, I will focus on the self-provisioning trigger.

Q. PLEASE DESCRIBE YOUR UNDERSTANDING OF HOW BELLSOUTH IDENTIFIED LOCATIONS WHERE ACCESS TO HIGH CAPACITY UNBUNDLED LOOP LOCATIONS SHOULD BE LIMITED.

A. BellSouth developed a list of buildings/customer locations for which it claims competitive providers have deployed fiber optic facilities, using the following sources:

- discovery directly from the competitive providers; and
- and indirect information generated by GeoResults, which is a third-party market research firm.

For each building on the list so identified, Bellsouth asserts that two or more competitive providers are providing services and thus that the self-provisioning trigger has been met.

Q. DID BELLSOUTH APPROPRIATELY IMPLEMENT THE SELF-PROVISIONING TRIGGER FOR HIGH CAPACITY LOOPS?

A. No. Based on my review of the information in this case, BellSouth has grossly overstated the number of customer locations for which the self-provisioning loop trigger is met, due to BellSouth's unsupported assertion that numerous CLECs are serving building locations at the DS3 or dark fiber levels. Based upon my review of the information in this case, for at least the following reasons, BellSouth does not reliably identify locations where the self-provisioning trigger is met. First, BellSouth did not attempt to distinguish wholesale services from self-provisioned services in its analysis. Second, BellSouth chose not to use the data responses provided by the CLECs, and in many instances reported information contrary to that presented by the CLECs in discovery in an apparent attempt to inflate the number of buildings. Third, BellSouth appears to have used unverified, and in some cases, very questionable, data from GeoResults. BellSouth did not confirm

the GeoResults information with the CLECs identified therein, and generally ignored CLEC responses to BellSouth discovery asking whether those carriers had facilities in a building. Even if the GeoResults information turns out to be accurate based upon confirmation from the carrier, each building would need to be examined further to determine whether the carrier is providing service at the appropriate capacity levels, and that the buildings met the specific requirements the FCC rules establish for the self-provisioning triggers, such as operational readiness, ownership of facilities, and access to the entire building.

Fourth, BellSouth made the incorrect assumption that any location for which a CLEC has deployed fiber optic facilities is operationally ready to provide DS3 or dark fiber service. There are several issues that BellSouth would need to resolve before such a demonstration could be made, including verifying that the CLEC has access to all of the customers in a building, and that the CLEC is actually providing DS3 or dark fiber services in the building.

Q. PLEASE EXPLAIN YOUR POSITION THAT BELLSOUTH INAPPROPRIATELY MIXED THE RESULTS OF THE SELF-PROVISIONING TRIGGERS FOR LOOPS.

A. The FCC was very clear that the Self-Provisioning trigger is to be performed independent of wholesale at each specific capacity level. BellSouth did not follow this approach. Instead, BellSouth combined DS1, DS3 and dark fiber statements it gathered from the CLECs into one list, which allowed it to increase

the number of buildings for which it appears that two or more carriers are providing service.

Q. PLEASE EXPLAIN YOUR ASSERTION THAT BELLSOUTH MISREPRESENTED THE CLECS DATA RESPONSES IN AN EFFORT TO OVERSTATE THE NUMBER OF BUILDINGS?

A. I reviewed the data responses of AT&T, MCI, SBC, Time Warner Telecom, and Adelphia. For each carrier, BellSouth either overstated the number of buildings that the carriers were providing in total, or ignored specific information provided by the carrier as to specific capacity levels, and whether the services were provisioned as wholesale or self-provisioning only. *** [redacted] ***

Q. HAVE YOU BEEN ABLE TO NARROW THE NUMBER OF BUILDINGS THAT MAY BE ELIGIBLE FOR THE SELF-PROVISIONING TRIGGER?

A. Yes. In Exhibit ___ (GJB-1), I show the results of correcting the errors for the 5 carriers listed in the previous question *** [redacted]

[redacted] *** as well as eliminating several small carriers that did not appear to be facilities-based CLECs *** [redacted] [redacted] [redacted].*** This list is incomplete and will need further updates to the extent I can review the CLEC filings of other significant trigger CLECs, such as Progress Telecom and Epik.

Q. HOW MANY BUILDINGS FROM BELLSOUTH'S LIST ARE ACTUALLY ELIGIBLE FOR THE SELF-PROVISIONING TRIGGER AFTER CORRECTING BELLSOUTH'S INAPPROPRIATE AGGREGATION OF TRIGGERS AND MISREPRESENTATION OF DATA?

A. For the DS3 self-provisioning trigger, my analysis eliminates 27 buildings or nearly 30% from further consideration simply by correcting BellSouth's errors. I expect that further reductions will be warranted once the remaining 67 buildings are analyzed more closely. For dark fiber, I have eliminated the majority of the buildings from further consideration leaving only 22 that require more scrutiny.

Q. WHAT TYPE OF ADDITIONAL REVIEW NEEDS TO BE PERFORMED ON THESE REMAINING BUILDINGS?

A. First, the data filings of all of the CLECs need to be compared to BellSouth's filing to ensure that BellSouth did not misrepresent those carriers filings as well.

Second, the buildings need to be evaluated to ensure that they meet the standard of operational readiness at each relevant capacity level.

Q. WERE YOU ABLE TO DETERMINE WHICH DATA WAS PRODUCED BY GEORESULTS VS. CLEC DISCOVERY?

A. No. While Ms. Padgett indicated that she relied quite heavily upon GeoResults, BellSouth did not indicate for which buildings it was used.

Q. EVEN IF GEORESULTS COULD IDENTIFY CARRIERS WITH SOME PRESENCE IN A BUILDING, WHAT ADDITIONAL ANALYSIS WOULD BE NECESSARY TO DETERMINE WHETHER THE CARRIERS INCLUDED IN THAT REPORT COULD BE INCLUDED AS TRIGGER CANDIDATES AT A PARTICULAR LOCATION?

A. As I explained in my initial testimony, the FCC triggers require more than a simple "count the CLECs" approach. To be identified as trigger candidates, carriers must have access to all customers within the building. *See* Ball Direct at 19-20. Second, BellSouth must identify the specific capacity level(s) at which the CLEC is providing service to customers in the building. The Commission must analyze the triggers for DS3 and dark fiber services separately.

Q. DID BELLSOUTH CONDUCT THESE ADDITIONAL INQUIRIES?

A. No. In its analysis, BellSouth assumes that a carrier has access to the entire building. BellSouth also incorrectly assumes that the deployment of optical facilities at an OCn level of capacity qualifies as DS3 or dark fiber deployment.

Q. IS IT APPROPRIATE FOR BELLSOUTH TO INCLUDE BUILDINGS IDENTIFIED THROUGH GEORESULTS, THE THIRD PARTY MARKETING FIRM?

A. Not unless they are validated by the carriers themselves. Based upon my experience with GeoResults, many of the buildings it identifies as being served by CLECs are different than those identified by the companies themselves.

Q. PLEASE DESCRIBE THE TYPE OF FURTHER ANALYSIS REQUIRED OF THE REMAINING BUILDINGS.

A. Two key issues that the buildings must be evaluated upon are whether the CLEC can provide service to the whole building (as opposed to a single customer) as well as ensuring that the specific capacity level (DS3 or Dark Fiber) are being provisioned at to customers in the buildings.

Q. BASED UPON YOUR EXPERIENCE, IS IT UNCOMMON FOR CLECS TO CONFIGURE THEIR SERVICES TO SERVE ONLY ONE CUSTOMER OR FLOOR OF A BUILDING?

A. No, it is fairly common for a CLEC to have facilities only to one customer or floor in a particular building. For a variety of reasons, a CLEC may have entered

a building to serve only a particular customer, and may have provisioned what is called "Fiber to the Floor." In this instance, the customer does not use the shared riser facilities of the building, but instead has fiber facilities dedicated to its use. The carrier does not deploy equipment to the "minimum point of entry" ("MPOE") in a fiber to the floor situation. Carrier equipment is installed at the customer premises, not at the MPOE.

Q. UNDER SUCH "FIBER TO THE FLOOR" ARRANGEMENTS, DOES CLEC HAVE THE IMMEDIATE ABILITY TO SERVE OTHER CUSTOMERS IN THE BUILDING?

A. No. The CLEC would have to establish new facilities in the building's common space area, and would most likely have to negotiate a new arrangement with the building owner.

Q. WOULD IT BE APPROPRIATE TO INCLUDE A BUILDING FOR THE SELF-PROVISIONING TRIGGER FOR SUCH A "FIBER TO THE FLOOR" ARRANGEMENT?

A. No. The FCC triggers require that the CLEC be able to serve all customers at a given location. Only the specific customer location would qualify as being served by a CLEC, not the entire building. The CLEC is clearly not operationally ready to provide service throughout the building if it does not have the ability to access customers in the building.

Q. BASED UPON YOUR REVIEW OF BELLSOUTH'S ANALYSIS, DID BELLSOUTH INCLUDE ANY BUILDINGS FOR WHICH A CLEC INDICATED A FIBER TO THE FLOOR OR SIMILAR ARRANGEMENT?

A. Yes. As one example, based upon my review of *** [redacted] *** had indicated that it does not have access to the entire building. Based upon the CLEC responses I reviewed, the CLECs did not consistently indicate whether they have access to the entire building. That issue that must be verified before a CLEC is deemed operationally ready to serve the building.

Q. SHOULD THERE BE A GENERAL PRESUMPTION THAT CLECS ARE PROVIDING OC(N) SERVICES IN A GIVEN BUILDING UNLESS A DEMONSTRATION CAN BE MADE OTHERWISE?

A. Yes. It is vital to ensure that buildings for which the FCC has already determined there is no impairment, *i.e.,* those with OC(n) facilities, are not double counted for the purpose of identifying DS3 and dark fiber loop services. It is important to the "granularity" of the analysis that BellSouth go beyond simply identifying buildings with fiber, and actually determine those buildings for which DS3 or dark fiber services are being provided.

Q. DO YOU AGREE WITH BELLSOUTH WITNESS GRAY'S ASSERTION THAT BUILDINGS CURRENTLY EQUIPPED TO PROVIDE ONLY

OC(N) LEVEL SERVICES ARE OPERATIONALLY READY TO PROVIDE DS3 OR DARK FIBER SERVICES?

A. No. To the extent the OC(n) equipment is equipped to provide OC(n) level services, additional capital and labor will be required to derive a DS3 circuit, the amount of which will vary greatly based upon the existing configuration of the optical equipment and the available capacity. As the FCC noted, CLECs generally deploy fiber optic facilities to buildings for which they plan to offer OC(n) level services, as it is not generally economic to extend facilities for the provision of one or two DS3s.

Q. IS THE CLEC DATA THAT YOU REVIEWED CONSISTENT WITH BELLSOUTH'S THEORY THAT ANY TYPE OF CAPACITY LEVEL CAN BE SERVED OVER FIBER FACILITIES?

A. No. The CLECs generally served a specific capacity level into a given building. *** [redacted] ***

Q. HOW SHOULD THE REMAINING BUILDINGS BE ANALYZED RELATIVE TO CAPACITY LEVELS?

A. Each building must be analyzed separately for each capacity level. The mere existence of fiber cannot be used as a substitute for the actual provision of service at the DS1 or DS3 levels.

2. *DEDICATED TRANSPORT – ISSUES 9, 14*

Q. HAVE YOU REVIEWED BELLSOUTH'S TESTIMONY CONCERNING THE APPLICATION OF THE SELF-PROVISIONING TRIGGER TO DEDICATED TRANSPORT ROUTES?

A. Yes, I have reviewed the testimony of Shelley W. Padgett.

Q. WHAT WERE THE CONCLUSIONS OF THE SELF-PROVISIONING TRIGGER ANALYSIS AS PROVIDED BY BELLSOUTH?

A. BellSouth has asserted that 718 transport routes satisfy both the self-provisioning trigger and the wholesale trigger. The specific routes are listed in Attachment SWP-9 to Ms. Padgett's testimony.

Q. WHAT WAS THE PROCESS BELLSOUTH USED TO IDENTIFY DEDICATED TRANSPORT ROUTES THAT IT CLAIMS SATISFY THE SELF-PROVISIONING TRIGGER?

A. Similar to her process for loops, BellSouth witness Padgett developed a list of wire centers at which competitive providers have established collocation arrangements based upon information gathered in discovery and through examination of BellSouth's own collocation records. BellSouth then simply assumed that transport routes exist between each and every collocation arrangement within a given LATA for each individual carrier for both the DS3 and dark fiber capacity levels.

Q. DID BELLSOUTH PERFORM THE APPROPRIATE ANALYSIS TO DEMONSTRATE THAT THE SELF-PROVISIONING TRIGGERS WERE SATISFIED FOR DEDICATED TRANSPORT?

A. No. First, similar to loops, BellSouth completely misrepresents the CLEC data responses in an attempt to overstate the number of transport routes meeting the trigger. Second, instead of collecting and analyzing information on specific routes between wire centers "A" and "Z" for each competing provider as required by the FCC, BellSouth only gathered enough information to implement what I call its "connect the dots" methodology, in which it simply assumes that transport routes exist between each and every collocation arrangement for a given carrier, without regard for the carrier's actual use of the collocation arrangement. Additionally, in my review of the discovery, I saw no information from competitive providers that could be construed to mean that the provider is providing dedicated transport at the DS3 or dark fiber levels. This should not be surprising, as, consistent with the FCC's findings, carriers generally only can cost-justify constructing their own transport routes if they have enough traffic to warrant OC(n) level capacity levels.

Q. PLEASE EXPLAIN HOW BELLSOUTH MISREPRESENTED THE CLEC'S DATA RESPONSES.

A. Similar to loops, BellSouth misrepresented and in some case completely ignored the data provided by the CLECs. *** [redacted]

[redacted] ***

Q. HAVE YOU BEEN ABLE TO NARROW THE NUMBER OF ROUTES THAT MAY BE ELIGIBLE FOR THE SELF-PROVISIONING TRIGGER?

A. Yes. Exhibit ___ (GJB-2) lists each route that BellSouth has identified as satisfying the self-provisioning trigger, and further indicates by capacity type which routes may be eligible for the self-provisioning trigger subject to further review and analysis.

Q. HOW MANY ROUTES MAY POTENTIALLY BEING ELIGIBLE FOR THE SELF-PROVISIONING TRIGGER?

A. Of the 718 routes presented in Ms. Padgett's testimony, I have been able to eliminate 521 routes (or 72%) by correcting for BellSouth's errors described herein. I expect that the remaining 197 routes for which additional scrutiny is necessary will be reduced further if I am able to incorporate responses from additional key trigger CLECs, including FPL Fibernet, XO, and Florida Digital Networks.

Q. COULD YOU VERIFY WHETHER ANY OF THE 197 ROUTES REQUIRING ADDITIONAL ANALYSIS ACTUALLY MET THE FCC'S DEFINITION OF A ROUTE FOR THE PURPOSES OF THE TRIGGER ANALYSIS?

A. No. BellSouth appears to have relied upon the mere existence of a collocation arrangement to determine the endpoint of a route, and did not collect or rely upon information that would enable it to determine whether a route actually exists between two wire centers.

Q. PLEASE EXPLAIN YOUR POSITION THAT BELLSOUTH HAS FAILED TO PRESENT THE INFORMATION NECESSARY TO IDENTIFY ROUTES SERVED BY COMPETITIVE PROVIDERS.

A. As I stated above, the FCC has defined dedicated transport as "a connection between wire center or switch 'A' and wire center or switch 'Z'." The FCC elaborated that "even if, on the incumbent LEC's network, a transport circuit from 'A' to 'Z' passes through an intermediate wire center 'X,' the competing providers must *offer service* connecting wire centers 'A' and 'Z,' but do not have to mirror the network path of the incumbent LEC through wire center 'X'." Without this information it is impossible to determine that any of the routes in question actually satisfy the triggers.

Q. COULD YOU VERIFY THAT TRANSPORT AT THE RELEVANT CAPACITY LEVELS IS BEING PROVIDED FOR ANY OF THE ROUTES ON BELLSOUTH'S LIST?

A. No. CLECs generally indicated that transport is being provided on an OC(n) basis. I saw no information that could be used to determine that DS3 or dark fiber transport was being provided by three or more carriers on any given route.

Q. ARE YOU ASSERTING THAT THERE ARE NO DEDICATED TRANSPORT ROUTES THAT MEET THE FCC'S SELF-PROVISIONING TRIGGER IN FLORIDA?

A. No. Based upon the amount of CLEC investment in Florida over the past ten years, there very well may be some routes for which the self-provisioning trigger has been met. I am merely explaining that BellSouth has not met its burden of proof as required by the FCC. BellSouth has requested that an extraordinarily high number of routes be removed as UNEs in this proceeding. CLECs will be irreparably harmed if they are denied UNEs on a given route where they actually are impaired, so it is important to take whatever time to collect the appropriate information to identify only those routes where no impairment exists.

Q. WHY IS IT NECESSARY FOR BELLSOUTH TO DEMONSTRATE THAT TRANSPORT SERVICE IS BEING PROVIDED ON EACH ROUTE?

A. As I stated earlier in my testimony, CLECs generally establish collocation arrangements for the purpose of aggregating unbundled loop facilities, and as a

result they will typically place loop aggregation equipment such as digital loop carrier systems (DLCs) or digital subscriber line access multiplexers (DSLAMs) in these collocations. As most transport out of a wire center collocation is routed to a CLEC node or interexchange carrier point of presence, it will be an unusual occurrence for a CLEC to have provisioned a connection between two ILEC wire centers, unless there are customer locations in each wire center that need to be connected. Because collocations are generally not used for transport between ILEC wire centers, Bellsouth's "connect the dots" approach drastically overstates the number of actual transport routes connecting wire centers and cannot be used for the trigger analysis.

Q. IF THE LOOP AGGREGATION EQUIPMENT YOU DESCRIBE IS PRESENT IN A WIRE CENTER COLLOCATION, WOULD THE TRANSPORT THEN BE CONNECTED TO A CLEC SWITCH?

A. Yes. BellSouth failed to distinguish switched transport from dedicated transport. BellSouth did not attempt to determine for any of the identified routes whether the routes pass through a CLEC switch, which in my experience is the most common use of transport out of CLEC collocations. By definition, transport that is switched cannot be dedicated, as the traffic can be routed by the switch to points other than the "A" or "Z" wire centers.

Q. WHY WAS IT NECESSARY FOR BELLSOUTH TO IDENTIFY THE SPECIFIC CAPACITY LEVELS IN SERVICE AT EACH LOCATION?

A. Similar to loops, it is essential that equipment being used for OC(n) level services be distinguished from equipment providing DS3 or dark fiber transport. As the FCC determined, carriers generally configure transport facilities at much higher capacity levels than a DS3, so a reasonable assumption is that, even if there really is a connection between two BellSouth wire centers, it is most likely at an OC(n) level of capacity, which would make it inapplicable for the self-provisioning trigger.

Q. BASED UPON THE INFORMATION PRESENTED BY BELLSOUTH, IS IT POSSIBLE TO DETERMINE WHETHER ANY TRANSPORT ROUTES IN FLORIDA MEET THE SELF-PROVISIONING TRIGGER?

A. No. Without the determination as to where actual dedicated connections exist between the "A" and "Z" wire centers and the appropriate capacity levels, it is not possible to make a determination as to whether any routes meet the self-provisioning test.

Q. HOW SHOULD THE COMMISSION PROCEED TO THE EXTENT THAT BELLSOUTH HAS NOT COLLECTED ALL OF THE DATA NECESSARY TO DEMONSTRATE THE TRIGGERS?

A. BellSouth has the burden of proof to rebut the FCC's national findings of impairment. The Commission must deny BellSouth's claims in this proceeding if BellSouth has not presented adequate proof to satisfy either trigger. In the *TRO*,

the FCC stated that it envisioned subsequent reviews of loop and transport UNEs. BellSouth can challenge loops and routes in such a subsequent proceeding.

B. CRITIQUE OF VERIZON'S SELF-PROVISIONING ANALYSIS – ISSUES 2, 5, 9, & 14

Q. HAVE YOU REVIEWED VERIZON'S SELF-PROVISIONING ANALYSIS?

A. Yes, I have reviewed the testimony of Orville D. Fulp and John White at pages 13-14.

Q. DID VERIZON PERFORM A SELF-PROVISIONING ANALYSIS FOR HIGH CAPACITY LOOPS?

A. No. Verizon only performed a Self-Provisioning analysis for dedicated transport.

Q. WHAT WERE THE CONCLUSIONS OF THE SELF-PROVISIONING TRIGGER ANALYSIS AS PROVIDED BY VERIZON?

A. Verizon has asserted that 29 transport routes satisfy the self-provisioning trigger. The specific routes are listed on Exhibit B to the Fulp and White dedicated transport testimony, as supplemented by Exhibit F.2.

Q. WHAT WAS THE PROCESS VERIZON USED TO IDENTIFY THE DEDICATED TRANSPORT ROUTES THAT IT CLAIMS SATISFY THE SELF-PROVISIONING TRIGGER?

A. Verizon relied primarily upon a visual inspection process to identify which wire center collocation arrangements it believed competitors were providing service out of. Similar to Bellsouth, Verizon then implemented the "connect the dots" approach, and made the assumption that transport routes exist between each of the wire centers without any evidence of actual routes or whether the carrier provides the capacity level.

Q. ARE THE CRITICISMS YOU MADE OF BELLSOUTH'S SELF-DEPLYOMENT TRANSPORT TRIGGERS ALSO APPLICABLE TO VERIZON?

A. Yes. Just like BellSouth, Verizon did not provide the necessary showing that routes exist between the two wire centers collocation arrangements listed as the "A" and "Z" routes. Verizon did not take the necessary steps to ensure, for example, that the transport out of each wire center does not actually terminate to a switch.

Q. DID VERIZON VERIFY THAT THE COLLOCATION ARRANGEMENTS THEY IDENTIFIED ARE OPERATIONALLY READY TO PROVIDE TRANSPORT AT THE DS3 OR DARK FIBER CAPACITY LEVELS?

A. No. Just like BellSouth, Verizon merely identified the existence of electronic equipment in each central office. It is not possible to determine what capacity level is being provided based upon the mere existence of equipment in the central

office. As noted above, CLECs typically equip their central offices to provided OC(n) level transport, so it is likely that, to the extent any direct transport is being provided, it is not at the DS3 or dark fiber capacity levels.

Q. HAVE YOU IDENTIFIED ANY VERIZON WIRE CENTER PAIRS FOR WHICH IT APPEARS THE SELF-PROVISIONING TRIGGER HAS BEEN MET?

A. No.

III. WHOLESALE TRIGGERS FOR HIGH-CAPACITY LOOPS AND DEDICATED TRANSPORT – ISSUES 1, 3, 7, 11, 16

Q. WHAT IS THE PURPOSE OF THE FCC'S WHOLESALE TRIGGERS FOR HIGH CAPACITY LOOPS AND DEDICATED TRANSPORT?

A. The FCC permits ILECs to challenge these impairment findings on a location- and route-specific basis before the state commissions. One of the ways Bellsouth or Verizon could demonstrate non-impairment is by showing that other carriers sufficiently offer high-capacity loops and dedicated transport on a wholesale basis. These are known as the "Wholesale Triggers."

The Wholesale Triggers provide BellSouth and Verizon an opportunity demonstrate that there is no impairment for a specific customer location or route by identifying locations for which there are alternative providers offering wholesale loop and transport services to CLECs. In addition to evidence provided under the self-provisioning trigger, BellSouth and Verizon are also obliged to demonstrate that the alternative provider: (1) is actually offering wholesale

service for the specific route or location at the requisite capacity level; (2) has equipped its network to facilitate numerous wholesale customers; and (3) has developed the appropriate systems and procedures to manage a wholesale business.

Q. WHAT CAPACITY LEVELS ARE SUBJECT TO THE WHOLESALE TRIGGERS FOR HIGH CAPACITY LOOPS AND TRANSPORT?

A. Wholesale loops and transport at both the DS1 and DS3 level are subject to the Wholesale Triggers. Dark fiber *loops* are not subject to the Wholesale Trigger, while dark fiber *transport* is subject to the Wholesale Trigger.

Q. WHAT MUST BELLSOUTH AND VERIZON DEMONSTRATE TO THIS COMMISSION TO SATISFY THE WHOLESALE TRIGGERS FOR HIGH-CAPACITY LOOPS AND DEDICATED TRANSPORT?

A. The Wholesale Triggers examine whether there are competing providers offering a bona fide product at the specific location or on the specific route. Accordingly, BellSouth and Verizon must demonstrate that a carrier offers loops and/or transport at a specific customer location or on a transport route, respectively, and at the specific capacity level in question.

Q. WHAT MUST BELLSOUTH AND VERIZON DEMONSTRATE TO SATISFY THE WHOLESALE PROVISIONING TRIGGER FOR HIGH-CAPACITY LOOPS?

A. Specifically, under the FCC's rules, this trigger requires evidence that:

- Two or more competing providers not affiliated with each other or the ILEC are present at the customer location;
- Each provider has deployed its own facilities and is operationally ready to use those facilities to provide wholesale loops at that location;
- Each provider is willing to provide wholesale loops on a widely available basis at that location; and
- Each provider has access to the entire multiunit customer premises. *See* 47 C.F.R. § 51.319(a)(5)(i)(B).

Q. WHAT MUST BELLSOUTH AND VERIZON DEMONSTRATE TO SATISFY THE WHOLESALE PROVISIONING TRIGGER FOR DEDICATED TRANSPORT?

A. The wholesale trigger for dedicated transport requires specific evidence that:

- Two or more competing providers not affiliated with each other or with the ILEC are present on the route;
- Each provider has deployed its own transport facilities "and is operationally ready to use those facilities to provide dedicated … transport along the particular route";
- Each provider "is willing immediately to provide, on a widely available basis," dedicated transport to other carriers on that route;
- Each provider's "facilities terminate in a collocation arrangement at each end of the transport route that is located at an incumbent LEC premises *and* in a similar arrangement at each end of the transport route that is not located at an incumbent LEC premises"; and
- Requesting telecommunications carriers are able to obtain reasonable and nondiscriminatory access to the competing provider's facilities through a cross-connect to the competing provider's collocation arrangement.

See 47 C.F.R. § 51.319(e)(1)(ii) [DS1 transport], 51.319(e)(2)(i)(B) [DS3 transport], 51.319(e)(3)(i)(B) [dark fiber transport].

Q. ARE THERE ADDITIONAL ISSUES RELATED TO HIGH-CAPACITY LOOPS THAT NEED TO BE ADDRESSED FOR THE WHOLESALE TRIGGER?

A. Yes. First, each loop must terminate at a location that affords alternative providers access to the entire customer premises – including, in multi-tenant buildings, access to the same common space, house, and riser, and other intra-building wire as Bellsouth and Verizon enjoys. If a loop does not provide alternative providers with access to the entire customer premises, then the carrier providing the loop should not be counted for purposes of either the wholesale or the self-provisioning trigger. With regard to the Wholesale Triggers, in particular, without access to the entire customer premises, that carrier is not truly offering an alternative wholesale service.

Second, the high-capacity loop in question must provide a connection into BellSouth's central office. Competitors must be able to connect a wholesale loop with another carrier's transport, with their own collocated facilities, or with BellSouth UNE transport.

Q. DOES THE REQUIREMENT OF OPERATIONAL READINESS NEED TO BE EXAMINED FOR THE WHOLESALE TRIGGERS?

A. Yes. In addition to the requirements of the self-provisioning triggers, BellSouth and Verizon must demonstrate that the wholesale provider is operationally ready and willing to provide transport to other carriers at each capacity level. At a minimum, BellSouth and Verizon must show that each wholesale provider:

- Has sufficient systems, methods and procedures for pre-ordering, ordering, provisioning, maintenance and repair, and billing;
- Possesses the ability to actually provision wholesale high-capacity loops to each specific customer location identified or to provide dedicated transport along the identified route;
- For loops, has access to an entire multi-unit customer premises;
- Is capable of providing transport at a comparable level of capacity, quality, and reliability as that provided by the ILEC;
- For transport, is collocated in each central office at the end point of each transport route;
- Has the ability to provide wholesale high capacity loops and transport in reasonably foreseeable quantities, including having reasonable quantities of additional, currently installed capacity;
- Reasonably can be expected to provide wholesale loop and transport capacity on a going-forward basis; and
- Can provide service in a commercially reasonable timeframe, because if it takes to long to receive service customers will not sign up with CLECs.

I discuss this criteria in greater detail in my direct testimony. *See* Ball Direct at 27-34.

A. CRITIQUE OF BELLSOUTH FLORIDA WHOLESALE TRIGGER ANALYSES

1. *HIGH CAPACITY LOOPS*

Q. HAVE YOU REVIEWED BELLSOUTH'S TESTIMONY CONCERNING THE APPLICATION OF THE WHOLESALE TRIGGER TO HIGH CAPACITY LOOPS?

A. Yes, I have reviewed the testimony of Shelley W. Padgett.

Q. WHAT WERE THE CONCLUSIONS OF THE WHOLESALE TRIGGER ANALYSIS AS PROVIDED BY BELLSOUTH?

A. BellSouth has asserted that the same 94 buildings that it claimed for the self-provisioning trigger also satisfy the wholesale facilities trigger. The specific customer locations are listed in Attachment SWP-3 to Ms. Padgett's testimony.

Q. WHAT WAS THE PROCESS BELLSOUTH USED TO IDENTIFY THE 94 BUILDINGS THAT IT CLAIMS SATISFY THE WHOLESALE TRIGGER?

A. On page 9 of Ms. Padgett's testimony, Ms. Padgett lists the broad range of sources that she used to identify carriers as wholesalers, including discovery responses, BellSouth's "experience" in losing wholesale contracts, carriers' advertisements, carriers' public statements, and analyst and industry reports. Ms Padgett then continues with a creative assertion that the carrier does not even have to be currently selling wholesale service to qualify for the wholesale trigger, but instead just express some sort of "willingness" to provide wholesale services.

Clearly, under BellSouth's view, everyone is a wholesaler, whether they realize it or not.

Q. WHY IS IT IMPORTANT THAT THE WHOLESALE TRIGGER BE TREATED SEPARATELY FROM THE SELF-PROVISIONING TRIGGER, AND THAT CARE BE TAKEN TO AVOID INCORRECTLY LABELING A CARRIER AS A WHOLESALER?

A. Unlike the self-provisioning trigger, the wholesale trigger includes access to loops at the DS1 capacity level, meaning that CLECs could potentially be denied access to loops. DS1-loops are the primary means of provisioning service to medium-size enterprise customers for CLECs, and denial of DS1-loops would be a severe impediment to the CLECs' ability to provide competitive services.

Q. IN YOUR OPINION, IS BELLSOUTH ATTEMPTING TO MANIPULATE THIS DIFFERENCE BETWEEN THE TRIGGERS IN ORDER TO JUSTIFY THE REMOVAL OF DS1 LOOPS?

A. Yes. As described above, BellSouth has identified practically every carrier as a wholesaler without any meaningful supporting evidence in most cases. Additionally, BellSouth has declared that every one of the buildings on its list qualifies for the wholesale trigger at the DS1 level, meaning that, if approved, DS1-level loops will be unavailable to CLECs in any of those buildings.

Q. IS BELLSOUTH'S APPROACH TO IMPLEMENTING THE WHOLESALE TRIGGER FOR HIGH CAPACITY LOOPS CORRECT?

A. No. As described in Section IV above, BellSouth grossly overstated the number of buildings satisfying the self-provisioning trigger. To the extent that BellSouth is attempting to use the same list for the wholesale triggers, the list suffers from the same defects. BellSouth has compounded the problem by overstating the extent to which carriers provide wholesale services.

Q. DID BELLSOUTH ACCURATELY REPRESENT THE CLEC DATA RESPONSES IN TERMS OF WHETHER THEY ARE WHOLESALERS OR NOT?

A. No. Of the CLEC data responses I reviewed, almost all denied providing wholesale service. BellSouth included carriers as wholesalers despite their declaration to the contrary.

Q. HAVE YOU BEEN ABLE TO NARROW THE NUMBER OF BUILDINGS THAT POTENTIALLY COULD MEET THE WHOLESALE TRIGGER?

A. Yes. Exhibit ___ (GJB-1) provides that 27 buildings could meet the DS1 wholesale trigger, and 28 buildings that could potentially meet the DS3 wholesale trigger.

Q. WHAT STEPS NEED TO BE TAKEN TO ENSURE THAT THESE BUILDINGS ACTUALLY WOULD MEET THE WHOLESALE TRIGGER.

A. Similar to the Self-Provisioning Trigger, the CLEC must be able to serve all customers in the building, and must be providing loops at the relevant capacity level. Additionally, it must be validated that the CLEC's wholesale offering is widely available to competitors on a nondiscriminatory basis.

Q. DID BELLSOUTH PROPERLY VERIFY THE AVAILABILITY OF DS1 LOOP SERVICES ON A WHOLESALE BASIS FOR THE BUILDINGS IT LISTED?

A. No. According to BellSouth witness Padgett, BellSouth simply made an assumption that any existing fiber facility can provide DS1-level service. This assumption is incorrect. DS1-level service only can be provided when a fiber facility has been equipped with the appropriate electronics, including an optical multiplexer with the capability of provisioning DS1 channels. The FCC was very clear in its requirement that wholesale service must be available at the specific capacity level in order for the trigger to be satisfied.

Q. DID THE FCC ANTICIPATE THAT A VERY SMALL NUMBER OF BUILDINGS WOULD SATISFY THE WHOLESALE TRIGGERS?

A. Yes. In paragraph 338 of the TRO, the FCC stated that "We recognize that, while the record indicates that there are presently a limited number of alternative

wholesale loop providers serving multiunit premises, we anticipate that a competitive market will continue to *develop*." (emphasis added).

2. *DEDICATED TRANSPORT – ISSUES 7, 11, 16*

Q. HAVE YOU REVIEWED BELLSOUTH'S TESTIMONY CONCERNING THE APPLICATION OF THE WHOLESALE TRIGGER TO DEDICATED TRANSPORT ROUTES?

A. Yes, I have reviewed the testimony of Shelley W. Padgett.

Q. WHAT WERE THE CONCLUSIONS OF THE WHOLESALE TRIGGER ANALYSIS AS PROVIDED BY BELLSOUTH.

A. BellSouth has asserted that 718 routes meet the wholesale triggers. The specific transport routes are listed on Attachment SWP-3 to Ms. Padgett's loop testimony.

Q. PLEASE DESCRIBE THE PROCESS BELLSOUTH USED TO IDENTIFY DEDICATED TRANSPORT ROUTES THAT IT CONTENDS SATISFY THE WHOLESALE PROVISIONING TRIGGER.

A. BellSouth used the same "connect the dots" approach to collecting data that I described above in my critique of the self-provisioning trigger, and used the same broad-brush approach to identify wholesale service providers as it used for loops, essentially assuming without supporting evidence that every competitive provider of transport is providing wholesale on each and every route.

Q. DOES BELLSOUTH HAVE AN INCENTIVE TO BE OVERLY BROAD IN ITS IDENTIFICATION OF WHOLESALE TRANSPORT ROUTES?

A. Yes. First, similar to the wholesale trigger for loops, routes that meet the wholesale trigger also are eligible to have DS1-level transport delisted, which is not possible under the self-provisioning trigger. Additionally, since the wholesale trigger for dedicated transport only requires evidence of two competing providers, as opposed to the three for the self-provisioning trigger, BellSouth can increase the total number of routes to be delisted if it can certify that the providers are wholesalers instead of self-provisioners.

Q. DOES BELLSOUTH'S ANALYSIS OF THE WHOLESALE TRIGGERS FOR TRANSPORT SATISFY THE FCC REQUIREMENTS?

A. No. BellSouth's analysis of the wholesale trigger for transport incorporates all of the flaws of the self-provisioning analysis mentioned in Section IV. Additionally similar to the wholesale loop triggers, BellSouth declared several key CLECs as wholesalers even when they specifically denied providing wholesale services.

Q. HOW MANY ROUTES MAY BE ELIGIBLE FOR THE WHOLESALE TRIGGER AFTER CORRECTING BELLSOUTH'S ERRONEOUS APPROACH TO DETERMINING WHOLESALE ROUTES?

A. Of the 718 routes requested by BellSouth, 408 may be eligible. This is still an unreasonably high number of routes as compared to what ILECs have requested

in other states, and it would be my expectation that this number would be reduced dramatically after reviewing the full CLEC data responses.

Q. WHAT SHOULD THE NEXT STEPS BE IN ANALYZING THE ROUTES THAT MAY BE ELIGIBLE FOR THE WHOLESALE TRIGGERS?

A. Similar to the Self-provisioning trigger, it must be determined that a dedicated route actually exists between the two wire centers, and that the relevant capacity level is being provisioned. Additionally, it must be demonstrated that the wholesale service is being provided in a non-discriminatory and widely available manner.

Q. PLEASE EXPLAIN HOW BELLSOUTH ERRONEOUSLY LABELED COMPETITIVE PROVIDERS AS WHOLESALE PROVIDERS OF TRANSPORT BETWEEN BELLSOUTH WIRE CENTERS?

A. In their discovery responses, several competitive carriers specifically stated that they do not provide wholesale transport between ILEC wire centers. Therefore, these carriers should not have been included on BellSouth's list of wholesale transport providers.

Q. IS IT POSSIBLE FOR A CARRIER TO BE PROVIDING SERVICE TO ANOTHER CARRIER ON A GIVEN TRANSPORT ROUTE, BUT NOT BE CONSIDERED A WHOLESALE PROVIDER UNDER THE FCC TRIGGERS?

A. Yes. A key requirement under the FCC triggers is that the wholesale service be widely and generally available. Carriers occasionally will provide service to other carriers on an individual case basis or based on unique circumstances. These types of individual contract-type arrangements cannot qualify for the wholesale trigger unless it can be demonstrated that the service at the specific location meets the FCC requirements that the service be widely available, and that requesting carriers have nondiscriminatory access to such arrangements.

Q. BASED UPON YOUR REVIEW OF THE INFORMATION COLLECTED AND PROVIDED BY BELLSOUTH, IS IT POSSIBLE TO DETERMINE WHETHER ANY BUILDINGS OR TRANSPORT ROUTES SATISFY THE WHOLESALE TRIGGERS?

A. No. BellSouth has not made the showing necessary for a conclusion that the wholesale triggers have been met for any of the locations it has identified. As such, none of the buildings or transport routes qualify for the wholesale triggers.

B. VERIZON'S WHOLESALE TRIGGER ANALYSIS

Q. DID VERIZON PERFORM A WHOLESALE TRIGGER ANALYSIS FOR HIGH CAPACITY LOOPS?

A. No. Verizon only performed the analysis for dedicated transport

Q. HAVE YOU REVIEWED VERIZON'S TESTIMONY CONCERNING THE APPLICATION OF THE WHOLESALE TRIGGER TO DEDICATED TRANSPORT ROUTES?

A. Yes, I have reviewed the testimony of Fulp and White and corresponding exhibits.

Q. WHAT WERE THE CONCLUSIONS OF THE WHOLESALE TRIGGER ANALYSIS AS PROVIDED BY BELLSOUTH.

A. Verizon has asserted that 67 routes meet the wholesale trigger for DS1, DS3 and dark fiber transport, including the 25 routes that it proposed for the Self-Provisioning Trigger. The specific transport routes are listed on Exhibit C to the Fulp and White initial testimony, and Exhibits F.3 and F.4 of their supplemental testimony.

Q. PLEASE DESCRIBE THE PROCESS VERIZON USED TO IDENTIFY DEDICATED TRANSPORT ROUTES THAT IT CONTENDS SATISFY THE WHOLESALE PROVISIONING TRIGGER.

A. Verizon used the same "connect the dots" approach to collecting data that I described above in my critique of the self-provisioning trigger, and used the same broad-brush approach to identify wholesale service providers as it used for loops, essentially assuming without supporting evidence that every competitive provider of transport is providing wholesale on each and every route.

IV. POTENTIAL DEPLOYMENT ANALYSIS FOR HIGH-CAPACITY LOOPS AND DEDICATED TRANSPORT – ISSUE 20

Q. PLEASE DESCRIBE WHAT IS MEANT BY POTENTIAL DEPLOYMENT.

A. The potential deployment analysis essentially provides that BellSouth and Verizon may attempt to demonstrate that no impairment exists for loop locations or transport routes even though the self-provisioning trigger has not been satisfied.

Q. ARE DS1-CAPACITY LEVEL LOOPS AND TRANSPORT ELIGIBLE FOR A POTENTIAL DEPLOYMENT CLAIM?

A. No. The FCC defined potential deployment as a theoretical substitute for the self-provisioning trigger. As such, only those capacity levels eligible for the self-provisioning trigger (DS3 and Dark Fiber) are eligible for potential deployment claims.

Q. CAN AN ILEC MAKE A GENERAL CLAIM FOR POTENTIAL DEPLOYMENT, SUCH AS A CLAIM THAT NO IMPAIRMENT EXISTS FOR ALL BUILDINGS SERVED OUT OF A WIRE CENTER?

A. No. The FCC's language is clear that potential deployment claims must be location- or route-specific.

Q. WHAT TYPE OF DEMONSTRATION MUST BELLSOUTH AND VERIZON MAKE IN ORDER TO SUCCESSFULLY PROVE NO IMPAIRMENT EXISTS AT A LOCATION OR ROUTE EVEN THOUGH THE TRIGGERS HAVE NOT BEEN MET?

A. BellSouth and Verizon must demonstrate *for each specific customer location and route* that, contrary to the FCC's impairment determination, multiple competitive providers would be able to overcome the significant operational and economic barriers identified by the FCC and still be able to compete successfully. BellSouth therefore must demonstrate that the competitive providers would earn sufficient revenues relative to their significant fixed and sunk costs of providing dark fiber loops or transport, and fewer than two DS3s of traffic for loops or 12 DS3s of traffic for transport (the maximum amount of capacity that CLECs may purchase as UNEs) or dark fiber loops and dedicated transport to cover the costs. Again, this demonstration must be location-specific.

Q. WHAT ARE THE FACTORS THAT BELLSOUTH MUST DEMONSTRATE TO THE COMMISSION TO SATISFY THE POTENTIAL DEPLOYMENT TEST FOR HIGH CAPACITY LOOPS TO A SPECIFIC CUSTOMER LOCATION?

A. In paragraph 335 of the *TRO*, the FCC requires that "when conducting its customer location specific analyses, a state must consider and may also find no impairment at a particular customer location even when this trigger has not been facially met *if* the state commission finds that no material economic or operational barriers at a customer location preclude competitive LECs from economically deploying loop transmission facilities to that particular customer location at the relevant loop capacity level. In making a determination that competitive LECs *could* economically deploy loop transmission facilities at that location at the

relevant capacity level, the state commission must consider numerous factors affecting multiple CLECs' ability to economically deploy facilities at that particular customer location." In the *TRO*, the FCC then lists the following factors:

- Evidence of alternative loop deployment at that particular customer location;
- Local engineering costs of building and utilizing transmission facilities;
- The cost of underground or aerial laying of fiber or copper;
- The cost of equipment needed for transmission;
- Installation and other necessary costs involved in setting up service;
- Local topography such as hills and rivers;
- Availability of reasonable access to rights-of-way;
- Building access restrictions/costs; and
- Availability/feasibility of similar quality/reliability alternative transmission technologies at that particular location.

TRO ¶ 335.

Q. WHAT ARE THE FACTORS THAT BELLSOUTH MUST DEMONSTRATE TO THE COMMISSION TO SATISFY THE POTENTIAL DEPLOYMENT TEST FOR DEDICATED TRANSPORT ROUTES?

A. For transport, the FCC also found that actual deployment is the best indicator of impairment, but noted that a state commission must also consider potential deployment for a particular route "that it finds is suitable for 'multiple, competitive supply,' but along which [the actual deployment] trigger is not

facially satisfied." *Id.* ¶ 410. The factors that the Commission must evaluate for transport are similar to those for loops and include the following characteristics:

- Local engineering costs of buildings and utilizing transmission facilities;
- The cost of underground or aerial laying of fiber;
- The cost of equipment needed for transmission;
- Installation and other necessary costs involved in setting up service;
- Local topography such as hills and rivers;
- Availability of reasonable access to rights-of-way;
- The availability or feasibility of alternative transmission technologies with similar quality and reliability;
- Customer density or addressable market; and
- Existing facilities-based competition.

TRO ¶ 410.

Each of these characteristics must be evaluated in the potential deployment analysis. For that reason, an ILEC that claims CLECs are not impaired without access to UNEs in serving a specific route will need to introduce evidence with respect to each factor that demonstrates that the factor alone, or in combination with others, does not operate as a barrier to CLECs' ability to deploy the facilities in question.

Q. WITH RESPECT TO BOTH HIGH CAPACITY LOOPS AND DEDICATED TRANSPORT, WHAT SORT OF EVIDENCE MUST BELLSOUTH OFFER WITH RESPECT TO CAPACITY LEVELS?

A. Any evidence an ILEC presents on potential deployment will necessarily have to address the limitations on the availability of UNEs that are *already built in* to the FCC's new unbundling rules. Thus, with respect to loops, BellSouth's factual showing and analysis concerning potential deployment needs to explain how CLECs are not impaired in their ability to deploy dark fiber loops or up to two DS3 loops at a specific customer location. *TRO* ¶ 324. Similarly, with respect to transport, BellSouth's analysis must reflect the FCC's decision that CLECs are impaired without unbundled access to dark fiber transport and twelve or fewer DS3s of transport along any given transport route. *TRO* ¶ 388.

Q. DO YOU THINK IT IS LIKELY THAT MOST ILECS WOULD BE ABLE TO MAKE THIS SORT OF SHOWING?

A. It is difficult to see how an ILEC would make such a detailed and site-specific showing. The FCC already has restricted the availability of loop and transport UNEs by placing strict limits on the capacity levels (2 DS3s for loops, 12 DS3s for transport) that any individual CLEC may obtain at a given location. The record before the FCC contained overwhelming evidence, summarized in the *TRO*, that CLECs remain impaired without the limited access granted by the *TRO* to UNEs at these lower-capacity levels, because "the potential revenue stream associated" with lower-capacity facilities "is many times smaller than that" of a higher-capacity facility. *TRO* ¶ 320 n.945. These lower revenues are highly unlikely to cover the high fixed and sunk costs of facilities deployment, *id.*, and compound the "other economic and operational barriers" that CLECs face in

deploying their own facilities. TRO ¶ 320 & n. 946; *see, e.g.*, TRO ¶¶ 205-07, 298-99 & n.860, 302-06, 324-27 & n.954, 360, 370-71, 376, 381-93, 399. Moreover, loop economics depend upon certain best-case assumptions – such as the existence of a fiber transport ring with an access point (that is, a point where a lateral line may be attached to an add/drop multiplexer to allow interconnection between the loop facility and the fiber ring) close to the building in question – that may not be satisfied at any given location. Finally, no one seriously contests that "build it and they will come" is anything but a failed entry strategy, and that CLECs therefore need access to UNEs or wholesale capacity at some minimum threshold level in order to obtain a customer base sufficient to support the building of their own facilities.

Therefore, to demonstrate potential deployment in accordance with the *Triennial Review Order*, the ILEC would have to show – for each particular building or transport route – that the revenues available to a CLEC at that location would be sufficient to overcome the fixed and sunk costs of constructing a facility at that location (taking into account all the location-specific variables listed by the FCC) that affect those costs and revenues. In addition, the ILEC's evidence also would need to show that no other economic and operational barriers exist for the particular location or route in question. The inherent limitations of fixed, low-capacity facilities to generate adequate revenues to cover the high costs of loop deployment make it highly unlikely that any ILEC could make the requisite showing for any individual location or route. And the universal nature of entry barriers such as gaining necessary rights of way, gaining adequate building

access, deploying the facilities, and convincing customers to accept the delays inherent in service provided over new facilities, make it even more doubtful that ILECs could provide evidence for *specific* locations that would overcome the FCC's findings of impairment and demonstrate instead that there could be "multiple competitive supply" so that competition can be effectively served by denying CLECs access to unbundled facilities at locations where CLECs have not found it economical or desirable to deploy their own facilities.

A. CRITIQUE OF BELLSOUTH FLORIDA POTENTIAL DEPLOYMENT ANALYSIS

1. *HIGH CAPACITY LOOPS*

Q. HAVE YOU REVIEWED BELLSOUTH'S TESTIMONY CONCERNING THE APPLICATION OF THE POTENTIAL DEPLOYMENT ANALYSIS TO HIGH CAPACITY LOOPS?

A. Yes, I have reviewed the testimony of Aniruddha (Andy) Banerjee.

Q. WHAT WERE THE CONCLUSIONS OF THE POTENTIAL DEPLOYMENT ANALYSIS AS PROVIDED BY BELLSOUTH?

A. BellSouth, through Dr. Banerjee's testimony, has asserted that 387 customer loop locations satisfy the potential deployment analysis for high capacity loops.

Q. DO YOU BELIEVE IT IS CREDIBLE THAT THERE ARE THREE TIMES MORE BUILDINGS THAT BELLSOUTH CLAIMS QUALIFY FOR POTENTIAL DEPLOYMENT THAN BELLSOUTH IDENTIFIED FOR SELF-PROVISIONING?

A. No. The current scope of CLEC networks represents more than 10 years of laborious efforts by individual companies, who have pieced together their networks building by building, working through the myriad issues facing companies that perform construction tasks in major city areas. At most of those buildings for which some form of service is being provided, installation of CLEC facilities were most likely economically justified based upon the provision of OC(n) level services. Also, it is likely that the remaining buildings (the ones not

served by CLEC facilities) are either not as attractive due to the type of customers in the building, or the competitive providers have been dissuaded from entry due to other barriers such as building access or other building-specific issues. Finally, the current financial environment is such that competitive carriers do not have the same level of available financing as they did in the previous years to justify new construction. It defies the realities of today's telecommunications marketplace – as well as basic common sense – to believe that, with all of these considerations, CLECs would be able to economically build out to even a small percentage of the buildings listed by BellSouth for the sole purpose of provisioning only one or two DS3s of capacity or providing dark fiber, let alone six times that number of buildings.

Q. PLEASE DESCRIBE, BASED UPON WITNESS BANERJEE'S TESTIMONY, THE PROCESS BELLSOUTH USED TO DETERMINE THAT 387 BUILDINGS SATISFIED THE POTENTIAL DEPLOYMENT ANALYSIS FOR HIGH CAPACITY LOOPS

A. Mr. Banerjee developed a list of buildings that had a monthly "telecommunications spend" of $5,000 or more, or $60,000 annually. To obtain an estimate of building spending levels, Mr. Banerjee used data it obtained from TNS Telecoms, a third-party market research firms. For each building, Mr. Banerjee then performed what he described as a net present value analysis on each building based upon hypothetical cost assumptions. Buildings that had a

positive net present value based upon his assumptions were then presumed to pass the potential deployment analysis.

Q. APART FROM THE LACK OF GRANULARITY IN BELLSOUTH'S ANALYSIS, WHAT ARE SOME OF THE SPECIFIC CRITICISMS YOU HAVE OF BELLSOUTH'S APPROACH ON LOOP POTENTIAL DEPLOYMENT?

A. I have several specific criticisms. First, BellSouth does not analyze any of the building-specific factors specified in the *TRO* for any of the buildings it has identified. Second, BellSouth's use of a building's "total telecom spend" is an inappropriate means of identifying potential buildings, and it is also inappropriate to assume the "total telecom spend" of a building as potential revenue a CLEC could expect to receive. Third, the cost figures BellSouth relies upon are flawed, in that they assume practically no cost of fiber construction. Finally, several key assumptions used in Mr. Banerjee's Net Present Value analysis, notably the project life and discount rates, are inappropriate and have the result of inflating the resulting net present value of each building location.

Q. DO YOU BELIEVE THAT THE PROCESS BELLSOUTH USED COMPLIES WITH THE GUIDANCE THE FCC PROVIDED IN THE *TRO*?

A. No. BellSouth's process is the exact opposite of what the FCC specified in the *TRO*. The FCC made clear that, with respect to both the triggers and to potential

deployment analysis, "a more granular analysis should be applied on a *customer-by-customer location basis*." *TRO* ¶ 328 (emphasis added). It bears repeating that this granular analysis was to be conducted on a building-by-building basis in order to identify those limited instances in which multiple alternative loop deployment was possible even though it had not yet taken place. BellSouth, however, has attempted to "de-granularize" this analysis by instead developing a list of generic criteria that it then applied equally to hundreds of customer locations. But these generic criteria do not address or even take into account, the specific factors identified in the *TRO*. For example, two factors that the *TRO* requires to be evaluated for each building are (1) availability of rights-of-way and (2) building access restrictions; BellSouth's testimony does not evaluate these factors for even a single building on its potential deployment list.

Q. IS BELLSOUTH'S USE OF A BUILDING'S ESTIMATED TOTAL ANNUAL TELECOMMUNICATIONS SPENDING, IN THIS INSTANCE $60,000, AN APPROPRIATE WAY OF IDENTIFYING BUILDINGS FOR THE POTENTIAL DEPLOYMENT ANALYSIS?

A. No. The appropriate approach should be to determine whether a building has sufficient demand for DS3 or Dark Fiber loops to allow for multiple, competitive supply into the building. A large building (or even a single customer in that building) easily could surpass the $60,000 threshold without having any demand whatsoever for DS3 or Dark Fiber loops. BellSouth should have the capability based upon its own customer records to determine which buildings actually have a

demand for the specific capacity levels, the number of which should be significantly less than the quantity meeting the $60,000 threshold.

Q. IS IT APPROPRIATE TO USE THE $60,000 ESTIMATED TOTAL BUILDING TELECOMMUNICATIONS SPENDING AMOUNT AS A POTENTIAL REVENUE STREAM CLECS COULD EXPECT TO RECEIVE TO OFFSET THEIR COST OF LOOP CONSTRUCTION?

A. No. Consistent with the capacity-specific nature of the analysis, the only revenues that should be considered are those specific to the building of individual DS3s or dark fiber loops. This is consistent with the FCC's determination as mentioned above that "the potential revenue stream associated" with lower-capacity facilities "is many times smaller than that" of a higher-capacity facility. *TRO* ¶ 320 n.945. And notably, the view here must be of a carrier that has the opportunity to obtain access to UNEs (otherwise an impairment review is unnecessary). Thus, since a requesting carrier may only obtain up to 2 DS3s at UNE rates per customer location, the question is whether that carrier – not a carrier seeking to serve a larger demand – could afford to self-deploy its own facilities to serve at that level. Accordingly, any reference to a "total building revenue" is inappropriate. That figure certainly would contain revenues other than those for the specific one or two DS3s that a requesting carrier could obtain as a UNE, and can be expected to include potential OC(n) circuits, long distance service, and data services, and, as a result, improperly skews such analysis. If the total revenues for such services were to be included in an potential deployment

analysis, without access to specific revenues available from specific uncommitted customers in a location, the Commission only could anticipate that they would generate average revenues for services provided over such facilities. BellSouth does not offer proof of either. Moreover, if total revenues from the use of a loop are to be considered, then the analysis must consider all of the costs of providing all services over such facilities. BellSouth also fails to produce this evidence. Moreover, this revenue figure does not consider that enterprise customers in commercial buildings are generally tied up in long-term contracts that make them economically unavailable for a competitive provider.

Since loops are used as an input to other services and represent only a small portion of the facilities needed to provide entire high capacity services to enterprise customers, it would be both reasonable and consistent to measure the costs of provisioning such facilities against the revenues that a CLEC could earn by providing DC3s or dark fiber as a wholesale offering. It is also consistent with CLEC "build or buy" analyses for an individual building. For example, a CLEC's decision to replace an existing special access line into a building with the CLEC's own DS3 loop is driven solely by whether the cost to provision its own loop is less than the cost of purchasing the special access line.

Q. DOES DR. BANERJEE'S ANALYSIS USE ANY BUILDING SPECIFIC COSTS FOR HIS POTENTIAL DEPLOYMENT ANALYSIS?

A. No. Dr. Banerjee's analysis uses two primary cost sources for his analysis: hypothetical network cost information provided by BellSouth witness Wayne

Gray, and hypothetical expense information based upon a proprietary BellSouth marketing model called the BellSouth Analysis of Competitive Entry ("BACE").

Q. IS THE COST INFORMATION PROVIDED BY BELLSOUTH WITNESS GRAY MEANINGFUL IN THE CONTEXT OF THE FCC'S POTENTIAL DEPLOYMENT REQUIREMENTS?

A. No. Mr. Gray provided cost information that was used in developing TELRIC rates in Florida. It is important to remember that, unlike typical costing proceedings used to establish UNE rates, the potential deployment analysis requires an evaluation of costs specific to CLECs, who do not have BellSouth's scale, access to buildings, and access to rights-of-way.

Q. WHAT ARE THE KEY ELEMENTS OF THE NETWORK COST INFORMATION AS PRESENTED BY BELLSOUTH WITNESS GRAY?

A. Mr. Gray provides hypothetical network cost information for the optical electronics used to derive a DS3 loop, and a hypothetical per-foot cost estimate of fiber extension.

Q. PLEASE EXPLAIN WHY YOU DO NOT BELIEVE IT IS REASONABLE TO DETERMINE POTENTIAL DEPLOYMENT BASED UPON A HYPOTHETICAL COST FACTOR BASED UPON DISTANCE BETWEEN CLEC FACILITIES AND SPECIFIC BUILDINGS.

A. The use of a hypothetical per-foot cost factor as proposed by BellSouth is flawed because does not take into consideration the location-specific obstacles that might be located between the CLEC's facilities and the building, especially in large city areas. Numerous obstacles and delays almost always occur for projects that involve digging up city streets, and the costs of such endeavors often accumulate to levels much higher than originally expected. Probably the most famous recent example of this is the "Big Dig", a highway renovation project that was recently completed in Boston. That project, which replaced only 7.5 miles of highway, ended up taking 15 years and costing in excess of $14 billion, $10 billion more than originally expected. While this is obviously an extreme example, it demonstrates that construction and installation of facilities over even short distances in city areas can present much greater economic barriers than will constructing facilities over longer distances in rural areas.

Q. FROM A PRACTICAL PERSPECTIVE, DOES THE COST INFORMATION THAT MR. GRAY PROVIDES MAKE SENSE IN THE CONTEXT OF POTENTIAL DEPLOYMENT?

A. No. Mr. Gray's analysis assumes a total installed investment of $4.92 per foot for a 100 strand fiber. This means that, for a 1,000 foot build, BellSouth is assuming less than $5,000 of construction costs, which reflects practically no construction at all, as construction projects of this type can often run into the hundreds of thousands of dollars depending upon the circumstances.

Q. PLEASE COMMENT ON THE NET PRESENT VALUE ANALYSIS PERFORMED BY DR. BANERJEE.

A. Although Dr. Banerjee appropriately uses a net present value analysis to evaluate the economic viability, the assumptions he uses in the analysis are not reflective of the requirements of the FCC's potential deployment analysis. First, as mentioned above, all of the inputs, both revenue and cost, are hypothetical. Outside of the estimated distance between a CLEC and the building, there is not one building-specific analysis for any of the nine criteria outlined by the FCC. Second, Dr. Banerjee chooses two unrealistic assumptions for the net present value analysis, both of which increase the resulting net present value for each building

Q. PLEASE DESCRIBE THE FIRST UNREALISTIC ASSUMPTIONS DR. BANERJEE USES IN HIS ANALYSIS.

A. Dr. Banerjee choose a 10 year project life for his analysis, meaning that he is assuming that the CLEC will have 10 years of revenue from customers in the building to recover the up front capital costs and ongoing expenses related to the loop. Obviously, the longer the project life, the more revenue there is available to offset the costs.

Q. BASED UPON YOUR EXPERIENCE, IS 10 YEARS AN APPROPRIATE PERIOD TO ASSUME A CLEC WILL BE ABLE TO RETAIN A CUSTOMER?

A. No. Typically, customers are unwilling to commit to contracts greater than 5 years, especially as prices of telecommunications services tend to decline over time due to competition and technological innovation. In my experience, it would be unlikely for CLEC to allocate capital to a project that did not produce a positive net present value until the 9th or 10th year.

Q. WHAT IS THE SECOND UNREALISTING ASSUMPTION USED IN DR. BANERJEE'S NPV ANALYSIS?

A Dr. Banerjee uses a discount rate of only 10.8%. The discount rate is supposed to reflect the risk-adjusted cost-of-capital of the company making the investment, and is used to reduce the weighting of cash flows farther out into the future for companies with higher risk. The practical effect of a lower discount rate is that cash flows in later years will have more bearing than they would if a higher discount rate were used, and thus provides for a higher net present value.

Q. WHY DO BELIEVE THAT A DISCOUNT RATE OF 10.9% IS UNREASONABLE FOR A CLEC?

A. This discount rate is approximately the same as that ordered of BellSouth in the most recent Florida UNE proceeding, and actually significantly lower than that proposed by BellSouth for itself in those proceedings. As BellSouth is an incumbent local exchange carrier, it's investments are perceived to be less risky relative to CLECs, especially after the numerous CLEC bankruptcies over the past several year.

Q. HOW DID BELLSOUTH REPRESENT ITS OWN COST OF CAPITAL IN THE PREVIOUS UNE PROCEEDING?

A. In Docket No. 990649-TP, BellSouth witness Billingsley testified that the 11.25% cost of capital is BellSouth had proposed is reasonable and conservative given his estimate that BellSouth's actual cost of capital ranges from 14.61% to 14.91%.

Q. ARE YOU AWARE OF ANY OTHER ANALYSES THAT PRESENT A MORE REALISTIC DEPICTION OF THE COSTS AND NECESSARY REVENUES FOR A CLEC TO EXTEND ITS NETWORK INTO A NEW BUILDING?

A. Yes. On November 25, 2002, AT&T filed a study with the FCC, in conjunction with the FCC's Triennial Review proceedings, which analyzes the costs and required revenues necessary to justify extending a typical CLEC's network to a new building. The study is included as Exhibit ___ (GJB-3) to my testimony. I have reviewed the AT&T study and, based on my experience, I find it presents a more thorough and realistic analysis of the costs that would be encountered and the revenues that would be considered by a CLEC in determining whether to extend a typical CLEC network into a new building than the analysis used by BellSouth in this case.

Q. WHAT WERE THE CONCLUSIONS OF THE AT&T STUDY AS IT PERTAINS TO UNBUNDLED LOOPS?

A. The study concluded that CLECs generally need to be able to provision at least 3 DS3s into a given building before the cost of constructing the loops can be recovered. This is consistent with the FCC's conclusion that no impairment exists for OC(3) and above loops.

Q. HOW DO YOU PROPOSE THAT THE AT&T STUDY BE USED BY THE COMMISSION IN EVALUATING BELLSOUTH'S POTENTIAL ANALYSIS?

A. The AT&T study supports the position that it is generally not economic for CLECs to build for the provision of a single DS3 or dark fiber loop to a building, and that any building for which BellSouth claims potential deployment must be treated as a unique exception, which must be supported by a full, building specific analysis.

Q. DID BELLSOUTH PROVIDE EVIDENCE OF ALTERNATIVE LOOP DEPLOYMENT FOR THE 387 BUILDINGS ON ITS LIST?

A. Dr. Banerjee did not indicate which of the buildings on the list had any loop deployment, and if so, how much.

Q. SHOULD ANY OF THE BUILDINGS LISTED BY BELLSOUTH QUALIFY FOR POTENTIAL DEPLOYMENT BASED UPON BELLSOUTH'S SHOWING IN THIS CASE?

A. No. BellSouth's analysis does not meet any of the FCC's criteria for items the Commission must evaluate, and therefore this Commission should find that BellSouth has not satisfied the potential deployment analysis for any of the buildings listed in the attachments to the Banerjee testimony.

Q. HOW SHOULD BELLSOUTH HAVE DONE ITS POTENTIAL DEPLOYMENT ANALYSIS FOR HIGH CAPACITY LOOPS?

A. BellSouth should have performed an individual discounted cash flow analysis using specific cost and potential revenue information for each building instead of hypothetical values. The analysis would provide evidence of alternate loop deployment for each building, and would specifically address each of the FCC's points. The discounted cash flow analysis would use project lives and depreciation rates that a CLEC actually would use for itself if it were really analyzing whether to extend its network out to a new building.

2. *DEDICATED TRANSPORT*

Q. HAVE YOU REVIEWED BELLSOUTH'S TESTIMONY CONCERNING THE APPLICATION OF THE POTENTIAL DEPLOYMENT ANALYSIS TO DEDICATED TRANSPORT?

A. Yes, I have reviewed the testimony of Dr. Banerjee on this matter.

Q. WHAT WERE THE CONCLUSIONS OF THE POTENTIAL DEPLOYMENT ANALYSIS AS PROVIDED BY BELLSOUTH?

A. BellSouth has asserted that 91 transport routes satisfy the potential deployment trigger, in addition to the 718 routes that it claimed satisfied the self-provisioning and wholesale triggers.

Q. PLEASE DESCRIBE THE PROCESS BELLSOUTH USED TO DETERMINE THAT THESE 91 TRANSPORT ROUTES SATISFY THE POTENTIAL DEPLOYMENT ANALYSIS FOR DEDICATED TRANSPORT?

A. Similar to the analysis used for loops, Dr. Banerjee performed a net present value analysis to compare the potential revenues or cost savings achieved by CLECs to their cost of building out to a new wire center and establishing a collocation arrangement.

Q. DO YOU BELIEVE THAT BELLSOUTH'S POTENTIAL DEPLOYMENT ANALYSIS FOR DEDICATED TRANSPORT IS PROPER?

A. No. Similar to the analysis for loops, Dr. Banerjee did not perform a route-specific analysis for each route that he claims satisfies the FCC's potential deployment criteria. Dr. Banerjee's analysis also is failed because it overstates the revenue associated with the buildout, and relies upon hypothetical cost assumptions that ignore the factors laid out by the FCC. Finally, Dr. Banerjee uses the same flawed assumptions for his net present value analysis as used for loops as well.

Q. HOW DOES BELLSOUTH OVERSTATE THE REVENUE ASSOCIATED WITH A BUILDOUT?

A. On page 18 of his testimony, Dr. Banerjee describes his approach to estimating the potential revenue a CLEC could receive from extending its network. Instead of determining the potential revenue for a specific route between two wire centers, Dr. Banerjee assumes that the revenue for his analysis is equal to the total spending of the CLEC for all transport, including special access, from the new wire center to all other wire centers, not just a single wire center. If Dr. Banerjee is including revenue between more than two wire centers in his analysis, then he is overstating the potential revenue associated with an individual route.

Q. HOW DOES DR. BANERJEE'S POTENTIAL DEPLOYMENT ANALYSIS FOR DEDICATED TRANSPORT INAPPROPRIATELY RELY UPON HYPOTHETICAL COST INFORMATION?

A. Similar to loops, Dr. Banerjee's analysis relies upon hypothetical cost information provided by BellSouth witness Wayne Gray.

Q. DOES MR. GRAY'S TESTIMONY PROVIDE REALISTIC CONSTRUCTION COST ESTIMATES?

A. No. Mr. Gray assumes a per-foot cost of $7.41 to extend fiber to a new wire center, which, like loops, basically assumes no real construction whatsoever. Using Mr. Gray's numbers, a 1,000 foot extension would cost the CLEC only $7,410. This dollar amount is not representative of costs that would be associated

with a real construction project, which often can run into the hundreds of thousands of dollars.

Q. DOES DR. BANERJEE USE THE SAME FLAWED ASSUMPTIONS IN HIS NET PRESENT VALUE ANALYSIS THAT HE USED IN HIS LOOP ANALYSIS?

A. Yes. Dr. Banerjee uses the same 10 year project life and 10.8% discount rate that I criticized in the loop section above.

Q. WHAT DO YOU CONCLUDE ABOUT BELLSOUTH'S POTENTIAL DEPLOYMENT ANALYSIS FOR DEDICATED TRANSPORT?

A. I have concluded that BellSouth has not satisfied its burden of proving potential deployment at any capacity level for any of the 91 routes for which it seeks such a finding. Similar to my recommendation for loops, BellSouth must provide a net-present value analysis that reflects the route-specific analysis required by the FCC. BellSouth only must consider the incremental revenues associated with a given route, and also must use more reasonable assumptions related to project life and discount rates in performing its net present value analysis.

V. THE COMMISSION SHOULD CONSIDER CERTAIN TRANSITION ISSUES IF THE COMMISSION MAKES FINDINGS OF NON-IMPAIRMENT – ISSUE 20

Q. ARE THERE TRANSITION ISSUES THAT THE COMMISSION MUST ADDRESS IF IT MAKES ANY FINDINGS OF NON-IMPAIRMENT IN THIS CASE?

A. Yes. If the Commission finds that requesting carriers are not impaired without access to unbundled transport and/or loops on any particular route or at any customer location, then the Commission must address various transition issues. Specifically, in the *Triennial Review Order*, the FCC required state commissions to establish an "appropriate period for competitive LECs to transition from any unbundled [loops or transport] that the state finds should no longer be unbundled." *TRO* ¶¶ 339, 417.

Q. WHAT PRINCIPLES SHOULD GUIDE THE SETTING OF AN APPROPRIATE TRANSITION PERIOD?

A. At a minimum, the Commission should set a transition period that provides competing carriers a reasonable period of time to self-provision the loops or transport in question and continue to offer service using UNEs pursuant to existing contracts. The latter is essential because services to enterprise customers are contract-based and generally do not allow the provider to terminate or modify the contract based upon sudden cost increases. Without a transition period, CLECs and their customers would face significant disruptions to their services if access to unbundled loops were disconnected or migrated to other services.

Q. WHAT IS YOUR RECOMMENDATION REGARDING THE SETTING OF A TRANSITION PROCESS?

A. I recommend that the Commission develop a multi-tiered transition process such as the one applicable to mass-market switching. First, there should be a transition

period of nine months in which CLECs may order new UNEs for locations and routes where the Commission found a trigger is met. Second, CLECs should have a transition period equal to that applied to line sharing and mass-market switching, which provides a 3-year transition process, with one-third transitioned within 13 months, and another one-third transitioned within 20 months. Third, all loop and transport UNEs should continue to be made available at TELRIC/TSLRIC rates until migrated.

Q. SHOULD THE COMMISSION ESTABLISH AN EXCEPTION PROCESS FOR LOCATIONS AND ROUTES WHERE THE TRIGGERS HAVE BEEN MET?

A. Yes. If a carrier demonstrates that it is attempting in good faith to construct facilities for a location or route for which UNEs are no longer available and that it is incurring a specific problem that makes construction within the applicable timeframe unachievable (e.g., issues with rights-of-way or building access), it should be permitted to seek an exception from the Commission consistent with the problem it faces. The CLEC should be permitted to continue to purchase the identified facility as a UNE until the Commission acts on its request.

Q. ARE THERE ADDITIONAL TRANSITION ISSUES THE COMMISSION SHOULD CONSIDER?

A. Yes. The Commission should ensure that both BellSouth and Verizon maintain adequate processes for ordering and provisioning combinations of loops and

transport, in situations where one or both network elements of the combination are no longer available as unbundled network elements. In the *Triennial Review Order*, over ILEC objections, the FCC specifically stated that competing carriers are permitted to continue to have access to combinations of loops and transport regardless of whether one of the network elements are no longer available on an unbundled basis. *See TRO* ¶ 584. Similarly, the Commission should ensure that BellSouth and Verizon have adequate billing processes and procedures in place for CLECs to purchase delisted network elements, whether individually or in combination.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

Exhibit GJB-1 - Buildings

Address	DS3 Self-Provisioning	Dark Fiber Self-Provisioning	DS1 Wholesale	DS3 Wholesale
500 S. Dixie HWY	1	1	1	1
244 N. Ridgewood Ave.	1	0	1	0
268 N. Ridgewood Ave	1	0	0	0
502 W. International	1	1	1	1
200 N. Andrews	0	0	0	0
300 NE 3rd. Ave	0	0	0	0
3250 W. Commercial	1	0	0	0
400 SW 2nd Ave	1	0	0	0
414 SW. 3rd Ave	1	0	0	0
1 Independent	0	0	0	0
10151 Deerwood Pk.	0	0	0	0
107 Watts St.	1	0	0	0
2225 Dennis St.	1	0	0	0
301 W. Bay St.	1	0	0	0
3728 Phillips HWY	0	0	0	0
404 N. Julia	0	1	1	1
421 Church St.	1	0	0	0
421 W. Church	1	1	1	1
424 N. Pearl	1	0	0	0
4814 Phillips	1	1	1	1
4905 BelFort	0	0	0	0
550 Water St.	1	0	0	0
601 Riverside	0	0	0	0
608 W. Adams	1	0	0	0
6410 Southpoint	1	1	0	0
7301 BayMeadows	1	0	0	0
8324 BayMeadows	0	0	0	0
8505 Baycenter	0	0	0	0
9000 Southside	1	0	0	0
93 Hanover St.	1	1	1	1
1150 Emma Oaks	1	0	1	1
31 Skyline	0	0	0	0
365 International	1	0	0	1
1 NE 1st. St.	1	1	1	1
100 Biscayne Blvd.	1	0	1	1
100 NE. 80th Ter	1	0	1	1
100 S. Biscayne Bay	0	0	1	1
100 SE 2ND	0	0	0	0
1020 NW 163rd	0	0	0	0
1080 NW 163rd	0	0	0	0
1101 Brickell	1	0	0	0
11300 NW 25th St.	1	0	1	1
13 NW 6th St.	1	0	0	0
150 SE. 2nd Ave	1	0	0	0
150 W. Flagler St.	1	1	0	0
15950 W. Dixie HWY	1	1	1	1
1701 Biscayne	0	0	0	0
18504 NE 5th. St.	0	0	0	0
1921 NW. 87th Ave	1	0	0	0
1953 NW 22nd St.	0	0	0	0

2 S. Biscayne	0	0	0	0
200 S. Biscayne	1	0	0	0
200 SE 1st St.	1	1	1	1
201 S Biscayne	1	0	0	0
2115 NW 22nd St.	1	0	0	0
2153 NW 22nd St	1	0	0	0
28 W. Flagler	1	0	0	0
36 NE 2nd St.	1	1	1	1
460 NE 215th St.	1	0	1	1
49 NW 5th St.	1	1	1	1
50 NE 9th	1	1	1	1
701 Brickell	1	0	0	0
8070 NW 53rd	0	0	0	0
8750 NW 21st	1	0	0	0
1 S. Orange Ave	1	0	0	0
100 W. Lucerne	1	1	1	1
1101 N. Keller Rd.	0	0	0	0
121 Weber St.	1	0	0	1
1319 S. Division	1	0	0	0
150 N. Orange Ave	0	0	0	0
200 E. Robinson	0	0	0	0
200 S. Orange	1	0	0	0
201 E. Pine St.	1	1	1	1
201 S. Orange	1	0	0	0
2315 E. Central	1	0	0	0
250 N. Orange	0	0	0	0
250 S. Orange	1	0	0	0
255 S. Orange	0	0	0	0
380 S. Lake Destiny	1	0	0	0
390 N Orange	1	1	1	1
435 N Orange	0	0	0	0
4959 Sand Lake	1	0	0	0
510 Columbia	1	0	1	1
5915 S. Rio Grande	1	1	0	0
6621 S. Orange	1	0	0	0
6770 Lake Ellenor	1	0	0	0
69 W. Concord St	1	1	1	1
800 N. Magnolia	1	0	0	0
2300 Commerce Pk	0	0	0	0
1370 Park Central	1	1	1	1
599 SW 16th	1	1	1	1
501 W. 94th	1	0	0	0
400 S Australian	1	0	0	0
601 15th	1	1	1	1
Total	67	22	27	28

GJBall Exhibit 2

	CLLI "a"	CLLI "z"	DS3 Self-Provisioning	Dark Fiber Self-Prov	DS1 - Wholesale	DS3-Wholesale	DarkFiber Wholesale
	Jacksonville						
1	JCVLFLAR	JCVLFLBW	1	1	1	1	1
2	JCVLFLAR	JCVLVLCL	1	1	1	1	1
3	JCVLFLAR	JCVLFLJT	0	0	0	0	0
4	JCVLFLAR	JCVFLNO	0	0	0	0	0
5	JCVLFLAR	JCVLFLRV	0	0	0	0	0
6	JCVLFLAR	JCVLFLSJ	1	1	1	1	1
7	JCVLFLAR	JCVLFLSM	1	1	1	1	1
8	JCVLFLAR	JCVLFLWC	0	0	0	0	0
9	JCVLFLAR	MNDRFLAV	1	1	1	1	1
10	JCVLFLAR	MNDRFLLO	1	1	1	1	1
11	JCVLFLBW	JCVLVLCL	1	1	1	1	1
12	JCVLFLBW	JCVLFLJT	0	0	0	0	0
13	JCVLFLBW	JCVFLNO	0	0	0	0	0
14	JCVLFLBW	JCVLFLRV	0	0	0	0	0
15	JCVLFLBW	JCVLFLSJ	1	1	1	1	1
16	JCVLFLBW	JCVLFLSM	1	1	1	1	1
17	JCVLFLBW	JCVLFLWC	0	0	0	0	0
18	JCVLFLBW	MNDRFLAV	1	1	1	1	1
19	JCVLFLBW	MNDRFLLO	1	1	1	1	1
20	JCVLVLCL	JCVLFLJT	0	0	0	0	0
21	JCVLVLCL	JCVFLNO	0	0	0	0	0
22	JCVLVLCL	JCVLFLRV	0	0	0	0	0
23	JCVLVLCL	JCVLFLSJ	1	1	1	1	1
24	JCVLVLCL	JCVLFLSM	1	1	1	1	1
25	JCVLVLCL	JCVLFLWC	0	0	0	0	0
26	JCVLVLCL	MNDRFLAV	1	1	1	1	1
27	JCVLVLCL	MNDRFLLO	1	1	1	1	1
28	JCVLVLCL	STAGFLMA	0	0	1	1	1
29	JCVLFLJT	JCVLFLSJ	0	0	0	0	0
30	JCVLFLJT	JCVLFLSM	0	0	0	0	0
31	JCVLFLJT	MNDRFLAV	0	0	0	0	0
32	JCVLFLJT	MNDRFLLO	0	0	0	0	0
33	JCVFLNO	JCVLFLRV	0	0	0	0	0
34	JCVFLNO	JCVLFLSJ	0	0	0	0	0
35	JCVFLNO	JCVLFLSM	0	0	0	0	0
36	JCVFLNO	JCVLFLWC	0	0	0	0	0
37	JCVFLNO	MNDRFLAV	0	0	0	0	0
38	JCVFLNO	MNDRFLLO	0	0	0	0	0
39	JCVLFLRV	JCVLFLSJ	0	0	0	0	0
40	JCVLFLRV	JCVLFLSM	0	0	0	0	0
41	JCVLFLRV	JCVLFLWC	0	0	0	0	0
42	JCVLFLRV	MNDRFLAV	0	0	0	0	0
43	JCVLFLRV	MNDRFLLO	0	0	0	0	0
44	JCVLFLSJ	JCVLFLSM	1	1	1	1	1
45	JCVLFLSJ	JCVLFLWC	0	0	0	0	0
46	JCVLFLSJ	MNDRFLAV	1	1	1	1	1
47	JCVLFLSJ	MNDRFLLO	1	1	1	1	1
48	JCVLFLSM	JCVLFLWC	0	0	0	0	0
49	JCVLFLSM	MNDRFLAV	1	1	1	1	1
50	JCVLFLSM	MNDRFLLO	1	1	1	1	1
51	JCVLFLSM	STAGFLMA	0	0	0	0	0
52	JCVLFLSM	MNDRFLAV	0	0	0	0	0
53	JCVLFLWC	MNDRFLLO	0	0	0	0	0
54	MNDRFLAV	MNDRFLLO	1	1	1	1	1
	Orlando						
55	COCOFLMA	EGLLFLBG	0	0	0	0	0
56	COCOFLMA	LKMRFLMA	0	0	0	0	0
57	COCOFLMA	MLBRFLMA	0	0	0	0	0
58	COCOFLMA	ORLDFLAP	0	0	0	0	0
59	COCOFLMA	ORLDFLCL	0	0	0	0	0

60	COCOFLMA	ORLDFLMA	0	0	0	0	0
61	COCOFLMA	ORLDFLPC	0	0	1	1	1
62	COCOFLMA	ORLDFLPH	0	0	1	1	1
63	COCOFLMA	ORLDFLSA	0	0	1	1	1
64	EGLLFLBG	MLBRFLMA	0	0	0	0	0
65	LKMRFLMA	MLBRFLMA	0	0	0	0	0
66	LKMRFLMA	ORLDFLAP	0	0	1	1	1
67	LKMRFLMA	ORLDFLCL	0	0	1	1	1
68	LKMRFLMA	ORLDFLMA	0	0	1	1	1
69	LKMRFLMA	ORLDFLPC	0	0	0	0	0
70	LKMRFLMA	ORLDFLPH	0	0	1	1	1
71	LKMRFLMA	ORLDFLSA	0	0	1	1	1
72	MLBRFLMA	ORLDFLAP	0	0	1	1	1
73	MLBRFLMA	ORLDFLCL	1	1	1	1	1
74	MLBRFLMA	ORLDFLMA	1	1	1	1	1
75	MLBRFLMA	ORLDFLPC	0	0	1	1	1
76	MLBRFLMA	ORLDLHPH	0	0	1	1	1
77	MLBRFLMA	ORLDFLSA	0	0	1	1	1
78	ORLDFLAP	ORLDFLCL	1	1	1	1	1
79	ORLDFLAP	ORLDFLMA	1	1	1	1	1
80	ORLDFLAP	ORLDFLPC	1	1	1	1	1
81	ORLDFLAP	ORLDFLPH	1	1	1	1	1
82	ORLDFLAP	ORLDFLSA	1	1	1	1	1
83	ORLDFLAP	SNFRFLMA	0	0	0	0	0
84	ORLDFLCL	ORLDFLMA	1	1	1	1	1
85	ORLDFLCL	ORLDFLPC	1	1	1	1	1
86	ORLDFLCL	ORLDFLPH	1	1	1	1	1
87	ORLDFLCL	ORLDFLSA	1	1	1	1	1
88	ORLDFLCL	SNFRFLMA	0	0	0	0	0
89	ORLDFLMA	ORLDFLPC	1	1	1	1	1
90	ORLDFLMA	ORLDFLPH	1	1	1	1	1
91	ORLDFLMA	ORLDFLSA	1	1	1	1	1
92	ORLDFLMA	SNFRFLMA	0	0	0	0	0
93	ORLDFLPC	ORLDFLPH	1	1	1	1	1
94	ORLDFLPC	ORLDFLSA	1	1	1	1	1
95	ORLDFLPC	SNFRFLMA	0	0	0	0	0
96	ORLDFLPH	ORLDFLSA	1	1	1	1	1
97	ORLDFLPH	SNFRFLMA	0	0	0	0	0
98	ORLDFLSA	SNFRFLMA	0	0	0	0	0
	Pensacola						
99	PNSCFLBL	PNSCFLFP	1	1	1	1	1
100	PNSCFLBL	PNSCFLWA	1	1	1	1	1
101	PNSCFLFP	PNSCFLWA	1	1	1	1	1
	Southeast Florida						
102	BCRTFLBT	BCRTFLMA	1	1	1	1	1
103	BCRTFLBT	BYBHBLMA	0	0	1	1	1
104	BCRTFLBT	DLBHFLMA	0	0	0	0	0
105	BCRTFLBT	DRBHFLMA	1	1	1	1	1
106	BCRTFLBT	FTLDFLCY	0	0	0	0	0
107	BCRTFLBT	FTLDFLJA	0	0	0	0	0
108	BCRTFLBT	FTLDFLMR	1	1	0	0	0
109	BCRTFLBT	FTLDFLOA	1	1	1	1	1
110	BCRTFLBT	FTLDFLPL	0	0	0	0	0
111	BCRTFLBT	HLWDFLHA	0	0	0	0	0
112	BCRTFLBT	HLWDFLMA	0	0	0	0	0
113	BCRTFLBT	HLWDFLPE	1	1	1	1	1
114	BCRTFLBT	HLWDFLWH	0	0	0	0	0
115	BCRTFLBT	MIAMFLAE	0	0	0	0	0
116	BCRTFLBT	MIAMFLAP	0	0	1	1	1
117	BCRTFLBT	MIAMFLCA	0	0	0	0	0
118	BCRTFLBT	MIAMFLGR	1	1	1	1	1
119	BCRTFLBT	MIAMFLHL	0	0	1	1	1
120	BCRTFLBT	MIAMFLPB	0	0	0	0	0
121	BCRTFLBT	MIAMFLRR	1	1	1	1	1
122	BCRTFLBT	MIAMFLPL	0	0	0	0	0

123	BCRTFLBT	MIAMFLWM	0	0	0	0	0
124	BCRTFLBT	NDADFLGG	1	1	1	1	1
125	BCRTFLBT	PMBHFLFE	0	0	0	0	0
126	BCRTFLBT	PMBHFLMA	0	0	0	0	0
127	BCRTFLBT	PRRNFLMA	0	0	1	1	1
128	BCRTFLBT	WPBHFLAN	0	0	0	0	0
129	BCRTFLBT	WPBHFLGA	0	0	0	0	0
130	BCRTFLBT	WPBHFLGR	1	1	0	0	0
131	BCRTFLBT	WPBHFLHH	0	0	1	1	1
132	BCRTFLBT	WPBHFLRB	0	0	0	0	0
133	BCRTFLMA	BYBHFLMA	1	1	1	1	1
134	BCRTFLMA	DLBHFLMA	1	1	1	1	1
135	BCRTFLMA	DRBHFLMA	1	1	1	1	1
136	BCRTFLMA	FTLDFLCR	0	0	1	1	1
137	BCRTFLMA	FTLDFLCY	0	0	1	1	1
138	BCRTFLMA	FTLDFLJA	0	0	0	0	0
139	BCRTFLMA	FTDLFLMR	1	1	1	1	1
140	BCRTFLMA	FTDFLOA	1	1	1	1	1
141	BCRTFLMA	FTDFLPL	0	0	1	1	1
142	BCRTFLMA	HLWDFLHA	0	0	1	1	1
143	BCRTFLMA	HLWDFLMA	0	0	1	1	1
144	BCRTFLMA	HLWDFLPE	0	0	0	0	0
145	BCRTFLMA	HLWDFLWH	0	0	0	0	0
146	BCRTFLMA	MIAMFLAE	1	1	1	1	1
147	BCRTFLMA	MIAMFLAP	0	0	1	1	1
148	BCRTFLMA	MIAMFLCA	0	0	0	0	0
149	BCRTFLMA	MIAMFLGR	1	1	1	1	1
150	BCRTFLMA	MIAMFLHL	0	0	0	0	0
151	BCRTFLMA	MIAMFLME	0	0	1	1	1
152	BCRTFLMA	MIAMFLPB	0	0	0	0	0
153	BCRTFLMA	MIAMFLPL	1	1	1	1	1
154	BCRTFLMA	MIAMFLRR	0	0	0	0	0
155	BCRTFLMA	MIAMFLWM	0	0	0	0	0
156	BCRTFLMA	NDADFLGG	1	1	1	1	1
157	BCRTFLMA	PMBHFLFE	1	1	1	1	1
158	BCRTFLMA	PMBHFLMA	0	0	0	0	0
159	BCRTFLMA	PRRNFLMA	0	0	1	1	1
160	BCRTFLMA	WPBHFLAN	1	1	1	1	1
161	BCRTFLMA	WPBHFLGA	1	1	1	1	1
162	BCRTFLMA	WPBHFLGR	1	1	1	1	1
163	BCRTFLMA	WPBHFLHH	1	1	1	1	1
164	BCRTFLMA	WPBHFLLE	0	0	1	1	1
165	BCRTFLMA	WPBHFLRB	1	1	1	1	1
166	BYBHBLMA	DLBHFLMA	0	0	1	1	1
167	BYBHBLMA	DRBHFLMA	1	1	1	1	1
168	BYBHBLMA	FTLDFLCR	0	0	1	1	1
169	BYBHBLMA	FTLDFLCY	0	0	1	1	1
170	BYBHBLMA	FTLDFLOA	0	0	1	1	1
171	BYBHBLMA	FTLDFLPL	0	0	1	1	1
172	BYBHBLMA	MIAMFLGR	1	1	1	1	1
173	BYBHBLMA	MIAMFLPL	0	0	1	1	1
174	BYBHBLMA	PMBHFLFE	0	0	1	1	1
175	BYBHBLMA	PRRNFLMA	0	0	1	1	1
176	BYBHBLMA	WPBHFLAN	0	0	1	1	1
177	BYBHBLMA	WPBHFLGA	0	0	1	1	1
178	BYBHBLMA	WPBHFLHH	0	0	1	1	1
179	BYBHBLMA	WPBHFLLE	0	0	1	1	1
180	BYBHBLMA	WPBHFLRB	0	0	1	1	1
181	DLBHFLMA	DRBHFLMA	1	1	1	1	1
182	DLBHFLMA	FTLDFLCR	0	0	1	1	1
183	DLBHFLMA	FTLDFLCY	1	1	1	1	1
184	DLBHFLMA	FTLDFLJA	0	0	0	0	0
185	DLBHFLMA	FTLDFLMR	1	1	1	1	1
186	DLBHFLMA	FTLDFLOA	1	1	1	1	1
187	DLBHFLMA	FTLDFLPL	1	1	1	1	1
188	DLBHFLMA	FTLDFLSU	0	0	0	0	0
189	DLBHFLMA	HLWDFLHA	0	0	1	1	1

190	DLBHFLMA	HLWDFLMA	0	0	1	1	1
191	DLBHFLMA	HLWDFLPE	0	0	0	0	0
192	DLBHFLMA	HLWDFLWH	0	0	0	0	0
193	DLBHFLMA	MIAMFLAE	0	0	0	0	0
194	DLBHFLMA	MIAMFLAP	0	0	0	0	0
195	DLBHFLMA	MIAMFLCA	0	0	0	0	0
196	DLBHFLMA	MIAMFLGR	1	1	1	1	1
197	DLBHFLMA	MIAMFLHL	0	0	0	0	0
198	DLBHFLMA	MIAMFLPB	0	0	0	0	0
199	DLBHFLMA	MIAMFLPL	0	0	0	0	0
200	DLBHFLMA	MIAMFLRR	0	0	0	0	0
201	DLBHFLMA	MIAMFLWM	0	0	0	0	0
202	DLBHFLMA	NDADFLGG	1	1	1	1	1
203	DLBHFLMA	NDADFLOL	0	0	0	0	0
204	DLBHFLMA	PMBHFLCS	0	0	0	0	0
205	DRBHFLMA	PMBHFLFE	1	1	1	1	1
206	DRBHFLMA	PMBHFLFA	0	0	0	0	0
207	DRBHFLMA	PRRNFLMA	0	0	0	0	0
208	DRBHFLMA	WPBHFLAN	1	1	1	1	1
209	DRBHFLMA	WPBFLGA	1	1	1	1	1
210	DRBHFLMA	WPBHFLGR	1	1	1	1	1
211	DRBHFLMA	WPBHFLHH	0	0	1	1	1
212	DRBHFLMA	WPBHFLLE	0	0	1	1	1
213	DRBHFLMA	WPBHFLRB	1	1	1	1	1
214	DRBHFLMA	FTLDFLCR	0	0	1	1	1
215	DRBHFLMA	FTLDFLCY	1	1	1	1	1
216	DRBHFLMA	FTLDFLJA	0	0	0	0	0
217	DRBHFLMA	FTLDFLMR	1	1	1	1	1
218	DRBHFLMA	FTLDFLOA	1	1	1	1	1
219	DRBHFLMA	FTLDFLPL	1	1	1	1	1
220	DRBHFLMA	FTLDFLSU	0	0	0	0	0
221	DRBHFLMA	HLWDFLHA	0	0	1	1	1
222	DRBHFLMA	HLWDFLMA	0	0	1	1	1
223	DRBHFLMA	HLWDFLPE	0	0	0	0	0
224	DRBHFLMA	HLWDFLWH	0	0	0	0	0
225	DRBHFLMA	MIAMFLAE	0	0	0	0	0
226	DRBHFLMA	MIAMFLAP	0	0	1	1	1
227	DRBHFLMA	MIAMFLCA	0	0	0	0	0
228	DRBHFLMA	MIAMFLGR	1	1	1	1	1
229	DRBHFLMA	MIAMFLHL	0	0	0	0	0
230	DRBHFLMA	MIAMFLPB	0	0	0	0	0
231	DRBHFLMA	MIAMFLPL	0	0	0	0	0
232	DRBHFLMA	MIAMFLRR	0	0	0	0	0
233	DRBHFLMA	MIAMFLWM	0	0	0	0	0
234	DRBHFLMA	NDADFLGG	1	1	1	1	1
235	DRBHFLMA	NDADFLOL	0	0	0	0	0
236	DRBHFLMA	PMBHFLCS	0	0	0	0	0
237	DRBHFLMA	PMBHFLFE	1	1	1	1	1
238	DRBHFLMA	PMBHFLMA	0	0	0	0	0
239	DRBHFLMA	PRRNFLMA	0	0	1	1	1
240	DRBHFLMA	WPBHFLAN	1	1	1	1	1
241	DRBHFLMA	WPBHFLGA	1	1	1	1	1
242	DRBHFLMA	WPBHFLGR	1	1	1	1	1
243	DRBHFLMA	WPBHFLHH	1	1	1	1	1
244	DRBHFLMA	WPBHFLRB	1	1	1	1	1
245	FTLDFLCR	FTLDFLCY	0	0	1	1	1
246	FTLDFLCR	FTLDFLJA	0	0	1	1	1
247	FTLDFLCR	FTLDFLMR	0	0	1	1	1
248	FTLDFLCR	FTLDFLOA	0	0	1	1	1
249	FTLDFLCR	FTLDFLPL	0	0	1	1	1
250	FTLDFLCR	FTLDFLSU	0	0	0	0	0
251	FTLDFLCR	HLWDFLHA	0	0	1	1	1
252	FTLDFLCR	HLWDFLMA	0	0	1	1	1
253	FTLDFLCR	HLWDFLPE	0	0	0	0	0
254	FTLDFLCR	HLWDFLWH	0	0	0	0	0
255	FTLDFLCR	MIAMFLGR	0	0	1	1	1
256	FTLDFLCR	NDADFLOL	0	0	0	0	0

257	FTLDFLCR	PMBHFLCS	0	0	0	0	0
258	FTLDFLCR	PMBHFLFE	0	0	1	1	1
259	FTLDFLCR	PRRNFLMA	0	0	0	0	0
260	FTLDFLCR	WPBHFLAN	0	0	1	1	1
261	FTLDFLCR	WPBHFLGA	0	0	1	1	1
262	FTLDFLCR	WPBHFLHH	0	0	1	1	1
263	FTLDFLCR	WPBHFLLE	0	0	1	1	1
264	FTLDFLCR	WPBHFLRB	0	0	1	1	1
265	FTLDFLCY	FTLDFLJA	0	0	0	0	0
266	FTLDFLCY	FTLDFLMR	1	1	1	1	1
267	FTLDFLCY	FTLDFLOA	1	1	1	1	1
268	FTLDFLCY	FTLDFLPL	1	1	1	1	1
269	FTLDFLCY	FTLDFLSU	0	0	0	0	0
270	FTLDFLCY	HLWDFLHA	0	0	1	1	1
271	FTLDFLCY	HLWDFLMA	0	0	1	1	1
272	FTLDFLCY	HLWDFLPE	0	0	0	0	0
273	FTLDFLCY	HLWDFLWH	0	0	0	0	0
274	FTLDFLCY	MIAMFLAE	0	0	0	0	0
275	FTLDFLCY	MIAMFLAP	0	0	0	0	0
276	FTLDFLCY	MIAMFLCA	0	0	0	0	0
277	FTLDFLCY	MIAMFLGR	1	1	1	1	1
278	FTLDFLCY	MIAMFLHL	0	0	0	0	0
279	FTLDFLCY	MIAMFLPB	0	0	0	0	0
280	FTLDFLCY	MIAMFLPL	0	0	0	0	0
281	FTLDFLCY	MIAMFLRR	0	0	0	0	0
282	FTLDFLCY	MIAMFLWM	0	0	0	0	0
283	FTLDFLCY	NDADFLGG	0	0	1	1	1
284	FTLDFLCY	NDADFLOL	0	0	0	0	0
285	FTLDFLCY	PMBHFLCS	0	0	0	0	0
286	FTLDFLCY	PMBHFLFE	1	1	1	1	1
287	FTLDFLCY	PMBHFLMA	0	0	0	0	0
288	FTLDFLCY	PRRNFLMA	0	0	0	0	0
289	FTLDFLCY	WPBHFLAN	1	1	1	1	1
290	FTLDFLCY	WPBHFLGA	1	1	1	1	1
291	FTLDFLCY	WPBHFLGR	1	1	1	1	1
292	FTLDFLCY	WPBHFLHH	1	1	1	1	1
293	FTLDFLCY	WPBHFLLE	0	0	1	1	1
294	FTLDFLCY	WPBHFLRB	1	1	1	1	1
295	FTLDFLJA	FTLDFLMR	1	1	1	1	1
296	FTLDFLJA	FTLDFLOA	1	1	1	1	1
297	FTLDFLJA	FTLDFLPL	1	1	1	1	1
298	FTLDFLJA	FTLDFLSU	0	0	0	0	0
299	FTLDFLJA	HLWDFLHA	0	0	0	0	0
300	FTLDFLJA	HLWDFLMA	0	0	0	0	0
301	FTLDFLJA	HLWDFLDE	1	1	1	1	1
302	FTLDFLJA	HLWDFLWH	1	1	1	1	1
303	FTLDFLJA	MIAMFLAE	1	1	1	1	1
304	FTLDFLJA	MIAMFLAP	0	0	0	0	0
305	FTLDFLJA	MIAMFLCA	0	0	1	1	1
306	FTLDFLJA	MIAMFLGR	0	0	1	1	1
307	FTLDFLJA	MIAMFLHL	1	1	1	1	1
308	FTLDFLJA	MIAMFLPB	0	0	1	1	1
309	FTLDFLJA	MIAMFLPL	1	1	1	1	1
310	FTLDFLJA	MIAMFLRR	0	0	1	1	1
311	FTLDFLJA	MIAMFLSO	0	0	1	1	1
312	FTLDFLJA	MIAMFLWM	0	0	1	1	1
313	FTLDFLJA	NDADFLGG	1	1	1	1	1
314	FTLDFLJA	NDADFLOL	0	0	0	0	0
315	FTLDFLJA	PMBHFLCS	0	0	1	1	1
316	FTLDFLJA	PMBHFLFE	0	0	0	0	0
317	FTLDFLJA	PMBHFLMA	0	0	0	0	0
318	FTLDFLJA	PRRNFLMA	0	0	0	0	0
319	FTLDFLJA	WPBHFLAN	0	0	0	0	0
320	FTLDFLJA	WPBHFLGA	0	0	0	0	0
321	FTLDFLJA	WPBHFLGR	0	0	1	1	1
322	FTLDFLJA	WPBHFLHH	0	0	0	0	0
323	FTLDFLJA	WPBHFLRB	0	0	0	0	0

324	FTLDFLJA	FTLDFLOA	1	1	1	1	1
325	FTLDFLMR	FTLDFLPL	1	1	1	1	1
326	FTLDFLMR	FTLDFLSU	0	0	0	0	0
327	FTLDFLMR	HLWDFLHA	1	1	1	1	1
328	FTLDFLMR	HLWDFLMA	0	0	0	0	0
329	FTLDFLMR	HLWDFLPE	1	1	1	1	1
330	FTLDFLMR	HLWDFLWH	0	0	0	0	0
331	FTLDFLMR	HMSTFLHM	0	0	0	0	0
332	FTLDFLMR	MIAMFLAE	1	1	1	1	1
333	FTLDFLMR	MIAMFLAP	0	0	0	0	0
334	FTLDFLMR	MIAMFLBC	0	0	0	0	0
335	FTLDFLMR	MIAMFLCA	0	0	1	1	1
336	FTLDFLMR	MIAMFLGR	1	1	1	1	1
337	FTLDFLMR	MIAMFLHL	1	1	1	1	1
338	FTLDFLMR	MIAMFLME	0	0	1	1	1
339	FTLDFLMR	MIAMFLPB	0	0	1	1	1
340	FTLDFLMR	MIAMFLPL	1	1	1	1	1
341	FTLDFLMR	MIAMFLRR	0	0	1	1	1
342	FTLDFLMR	MIAMFLSO	1	1	1	1	1
343	FTLDFLMR	MIAMFLWM	0	0	1	1	1
344	FTLDFLMR	NDADFLGG	1	1	1	1	1
345	FTLDFLMR	NDADFLOL	0	0	0	0	0
346	FTLDFLMR	PMBHFLCS	0	0	1	1	1
347	FTLDFLMR	PMBHFLFE	1	1	1	1	1
348	FTLDFLMR	PMBHFLMA	0	0	0	0	0
349	FTLDFLMR	PRRNFLMA	0	0	1	1	1
350	FTLDFLMR	VRBHFLMA	0	0	1	1	1
351	FTLDFLMR	WPBHFLAN	1	1	1	1	1
352	FTLDFLMR	WPBHFLGA	1	1	1	1	1
353	FTLDFLMR	WPBHFLGR	1	1	1	1	1
354	FTLDFLMR	WPBHFLHH	0	0	1	1	1
355	FTLDFLMR	WPBHFLRB	1	1	1	1	1
356	FTLDFLOA	FTLDFLPL	1	1	1	1	1
357	FTLDFLOA	FTLDFLSU	0	0	0	0	0
358	FTLDFLOA	HLWDFLHA	0	0	1	1	1
359	FTLDFLOA	HLWDFLMA	0	0	1	1	1
360	FTLDFLOA	HLWDFLPE	1	1	1	1	1
361	FTLDFLOA	HLWDFLWH	0	0	0	0	0
362	FTLDFLOA	MIAMFLAE	1	1	1	1	1
363	FTLDFLOA	MIAMFLAP	0	0	0	0	0
364	FTLDFLOA	MIAMFLCA	0	0	1	1	1
365	FTLDFLOA	MIAMFLGR	1	1	1	1	1
366	FTLDFLOA	MIAMFLHL	1	1	1	1	1
367	FTLDFLOA	MIAMFLPB	1	1	1	1	1
368	FTLDFLOA	MIAMFLPL	1	1	1	1	1
369	FTLDFLOA	MIAMFLRR	1	1	1	1	1
370	FTLDFLOA	MIAMFLSO	0	0	1	1	1
371	FTLDFLOA	MIAMFLWM	0	0	1	1	1
372	FTLDFLOA	NDADFLGG	1	1	1	1	1
373	FTLDFLOA	NDADFLOL	0	0	0	0	0
374	FTLDFLOA	PMBHFLCS	0	0	1	1	1
375	FTLDFLOA	PMBHFLFE	1	1	1	1	1
376	FTLDFLOA	PMBHFLMA	0	0	0	0	0
377	FTLDFLOA	PRRNFLMA	0	0	1	1	1
378	FTLDFLOA	WPBHFLAN	0	0	1	1	1
379	FTLDFLOA	WPBHFLGA	1	1	1	1	1
380	FTLDFLOA	WPBHFLGR	1	1	1	1	1
381	FTLDFLOA	WPBHFLHH	0	0	1	1	1
382	FTLDFLOA	WPBHFLLE	0	0	1	1	1
383	FTLDFLOA	WPBHFLRB	1	1	1	1	1
384	FTLDFLPL	FTLDFLSU	0	0	0	0	0
385	FTLDFLPL	HLWDFLHA	0	0	1	1	1
386	FTLDFLPL	HLWDFLMA	0	0	1	1	1
387	FTLDFLPL	HLWDFLPE	1	1	1	1	1
388	FTLDFLPL	HLWDFLWH	0	0	0	0	0
389	FTLDFLPL	MIAMFLAE	1	1	1	1	1
390	FTLDFLPL	MIAMFLAP	0	0	0	0	0

391	FTLDFLPL	MIAMFLCA	0	0	1	1	1
392	FTLDFLPL	MIAMFLGR	1	1	1	1	1
393	FTLDFLPL	MIAMFLHL	0	0	1	1	1
394	FTLDFLPL	MIAMFLPB	0	0	1	1	1
395	FTLDFLPL	MIAMFLPL	1	1	1	1	1
396	FTLDFLPL	MIAMFLRR	0	0	1	1	1
397	FTLDFLPL	MIAMFLSO	0	0	1	1	1
398	FTLDFLPL	MIAMFLWM	0	0	1	1	1
399	FTLDFLPL	NDADFLGG	1	1	1	1	1
400	FTLDFLPL	NDADFLOL	0	0	0	0	0
401	FTLDFLPL	PMBHFLCS	0	0	1	1	1
402	FTLDFLPL	PMBHFLFE	1	1	1	1	1
403	FTLDFLPL	PMBHFLMA	0	0	0	0	0
404	FTLDFLPL	PRRNFLMA	0	0	1	1	1
405	FTLDFLPL	WPBHFLAN	1	1	1	1	1
406	FTLDFLPL	WPBHFLGA	1	1	1	1	1
407	FTLDFLPL	WPBHFLGR	1	1	1	1	1
408	FTLDFLPL	WPBHFLHH	0	0	1	1	1
409	FTLDFLPL	WPBHFLLE	0	0	1	1	1
410	FTLDFLPL	WPBHFLRB	1	1	1	1	1
411	FTLDFLSU	HLWDFLHA	0	0	0	0	0
412	FTLDFLSU	HLWDFLMA	0	0	0	0	0
413	FTLDFLSU	HLWDFLPE	0	0	0	0	0
414	FTLDFLSU	HLWDFLWH	0	0	0	0	0
415	FTLDFLSU	NDADFLOL	0	0	0	0	0
416	FTLDFLSU	PMBHFLCS	0	0	0	0	0
417	FTLDFLSU	PMBHFLFE	0	0	0	0	0
418	FTLDFLSU	PRRNFLMA	0	0	0	0	0
419	HLWDFLHA	HLWDFLMA	0	0	1	1	1
420	HLWDFLHA	HLWDFLPE	0	0	0	0	0
421	HLWDFLHA	HLDWFLWH	0	0	0	0	0
422	HLWDFLHA	MIAMFLAE	0	0	0	0	0
423	HLWDFLHA	MIAMFLAP	0	0	0	0	0
424	HLWDFLHA	MIAMFLCA	0	0	0	0	0
425	HLWDFLHA	MIAMFLGR	0	0	1	1	1
426	HLWDFLHA	MIAMFLHL	0	0	0	0	0
427	HLWDFLHA	MIAMFLPB	0	0	0	0	0
428	HLWDFLHA	MIAMFLPL	0	0	0	0	0
429	HLWDFLHA	MIAMFLRR	0	0	0	0	0
430	HLWDFLHA	MIAMFLWM	0	0	0	0	0
431	HLWDFLHA	NDADFLGG	0	0	1	1	1
432	HLWDFLHA	NDADFLOL	0	0	0	0	0
433	HLWDFLHA	PMBHFLCS	0	0	0	0	0
434	HLWDFLHA	PMBHFLFE	0	0	1	1	1
435	HLWDFLHA	PMBHFLMA	0	0	0	0	0
436	HLWDFLHA	PRRNFLMA	0	0	0	0	0
437	HLWDFLHA	WPBHFLAN	0	0	1	1	1
438	HLWDFLHA	WPBHFLGA	0	0	1	1	1
439	HLWDFLHA	WPBHFLGR	0	0	1	1	1
440	HLWDFLHA	WPBHFLHH	0	0	1	1	1
441	HLWDFLHA	WPBHFLLE	0	0	1	1	1
442	HLWDFLHA	WPBHFLRB	0	0	1	1	1
443	HLWDFLMA	HLWDFLPE	0	0	0	0	0
444	HLWDFLMA	HLWDFLWH	0	0	0	0	0
445	HLWDFLMA	MIAMFLAE	0	0	0	0	0
446	HLWDFLMA	MIAMFLAP	0	0	0	0	0
447	HLWDFLMA	MIAMFLCA	0	0	0	0	0
448	HLWDFLMA	MIAMFLGR	0	0	1	1	1
449	HLWDFLMA	MIAMFLHL	0	0	0	0	0
450	HLWDFLMA	MIAMFLPB	0	0	0	0	0
451	HLWDFLMA	MIAMFLPL	0	0	0	0	0
452	HLWDFLMA	MIAMFLRR	0	0	0	0	0
453	HLWDFLMA	MIAMFLWM	0	0	0	0	0
454	HLWDFLMA	NDADFLGG	0	0	0	0	0
455	HLWDFLMA	NDADFLOL	0	0	0	0	0
456	HLWDFLMA	PMBHFLCS	0	0	0	0	0
457	HLWDFLMA	PMBHFLFE	0	0	1	1	1

458	HLWDFLMA	PMBHFLMA	0	0	0	0	0
459	HLWDFLMA	PRRNFLMA	0	0	0	0	0
460	HLWDFLMA	WPBHFLAN	0	0	1	1	1
461	HLWDFLMA	WPBHFLGR	0	0	1	1	1
462	HLWDFLMA	WPBHFLHH	0	0	1	1	1
463	HLWDFLPE	HLWDFLWH	0	0	0	0	0
464	HLWDFLPE	MIAMFLAE	1	1	1	1	1
465	HLWDFLPE	MIAMFLAP	0	0	0	0	0
466	HLWDFLPE	MIAMFLCA	0	0	1	1	1
467	HLWDFLPE	MIAMFLGR	1	1	1	1	1
468	HLWDFLPE	MIAMFLHL	1	1	1	1	1
469	HLWDFLPE	MIAMFLPB	0	0	1	1	1
470	HLWDFLPE	MIAMFLPL	1	1	1	1	1
471	HLWDFLPE	MIAMFLRR	0	0	1	1	1
472	HLWDFLPE	MIAMFLSO	0	0	1	1	1
473	HLWDFLPE	MIAMFLWM	0	0	1	1	1
474	HLWDFLPE	NDADFLGG	1	1	1	1	1
475	HLWDFLPE	NDADFLOL	0	0	0	0	0
476	HLWDFLPE	PMBHFLCS	0	0	1	1	1
477	HLWDFLPE	PMBHFLFE	0	0	0	0	0
478	HLWDFLPE	PMBHFLMA	0	0	0	0	0
479	HLWDFLPE	PRRNFLMA	0	0	1	1	1
480	HLWDFLPE	WPBHFLAN	0	0	0	0	0
481	HLWDFLPE	WPBHFLGA	0	0	0	0	0
482	HLWDFLPE	WPBHFLGR	1	1	1	1	1
483	HLWDFLPE	WPBHFLHH	0	0	0	0	0
484	HLWDFLPE	WPBHFLRB	0	0	0	0	0
485	HLWDFLWH	MIAMFLAE	0	0	0	0	0
486	HLWDFLWH	MIAMFLAP	0	0	0	0	0
487	HLWDFLWH	MIAMFLCA	0	0	0	0	0
488	HLWDFLWH	MIAMFLGR	0	0	0	0	0
489	HLWDFLWH	MIAMFLHL	0	0	0	0	0
490	HLWDFLWH	MIAMFLPB	0	0	0	0	0
491	HLWDFLWH	MIAMFLPL	0	0	0	0	0
492	HLWDFLWH	MIAMFLRR	0	0	0	0	0
493	HLWDFLWH	MIAMFLWM	0	0	0	0	0
494	HLWDFLWH	NDADFLGG	0	0	0	0	0
495	HLWDFLWH	NDADFLOL	0	0	0	0	0
496	HLWDFLWH	PMBHFLCS	0	0	0	0	0
497	HLWDFLWH	PMBHFLFE	0	0	0	0	0
498	HLWDFLWH	PMBHFLMA	0	0	0	0	0
499	HLWDFLWH	PRRNFLMA	0	0	0	0	0
500	HLWDFLWH	WPBHFLAN	0	0	0	0	0
501	HLWDFLWH	WPBHFLGA	0	0	0	0	0
502	HLWDFLWH	WPBHFLGR	0	0	0	0	0
503	HLWDFLWH	WPBHFLHH	0	0	0	0	0
504	HLWDFLWH	WPBHFLRB	0	0	0	0	0
505	HMSTFLHM	PRRNFLMA	0	0	0	0	0
506	MIAMFLAE	MIAMFLAP	0	0	1	1	1
507	MIAMFLAE	MIAMFLBC	0	0	0	0	0
508	MIAMFLAE	MIAMFLCA	0	0	1	1	1
509	MIAMFLAE	MIAMFLFL	0	0	1	1	1
510	MIAMFLAE	MIAMFLGR	1	1	1	1	1
511	MIAMFLAE	MIAMFLHL	0	0	1	1	1
512	MIAMFLAE	MIAMFLME	0	0	1	1	1
513	MIAMFLAE	MIAMFLPB	1	1	1	1	1
514	MIAMFLAE	MIAMFLPL	1	1	1	1	1
515	MIAMFLAE	MIAMFLRR	1	1	1	1	1
516	MIAMFLAE	MIAMFLSO	0	0	1	1	1
517	MIAMFLAE	MIAMFLWM	0	0	1	1	1
518	MIAMFLAE	NDADFLGG	1	1	1	1	1
519	MIAMFLAE	PMBHFLCS	0	0	1	1	1
520	MIAMFLAE	PMBHFLFE	0	0	0	0	0
521	MIAMFLAE	PMBHFLMA	0	0	0	0	0
522	MIAMFLAE	PRRNFLMA	0	0	1	1	1
523	MIAMFLAE	VRBHFLMA	0	0	0	0	0
524	MIAMFLAE	WPBHFLAN	1	1	1	1	1

525	MIAMFLAE	WPBHFLGA	0	0	0	0	0
526	MIAMFLAE	WPBHFLGR	0	0	0	0	0
527	MIAMFLAE	WPBHFLHH	0	0	0	0	0
528	MIAMFLAE	WPBHFLRB	1	1	1	1	1
529	MIAMFLAP	MIAMFLCA	0	0	0	0	0
530	MIAMFLAP	MIAMFLFL	0	0	1	1	1
531	MIAMFLAP	MIAMFLGR	1	1	1	1	1
532	MIAMFLAP	MIAMFLHL	0	0	0	0	0
533	MIAMFLAP	MIAMFLPB	0	0	1	1	1
534	MIAMFLAP	MIAMFLPL	0	0	1	1	1
535	MIAMFLAP	MIAMFLRR	0	0	0	0	0
536	MIAMFLAP	MIAMFLWM	0	0	0	0	0
537	MIAMFLAP	NDADFLGG	0	0	0	0	0
538	MIAMFLAP	PMBHFLFE	0	0	0	0	0
539	MIAMFLAP	PMBHFLMA	0	0	0	0	0
540	MIAMFLAP	PRRNFLMA	0	0	1	1	1
541	MIAMFLAP	WPBHFLAN	0	0	0	0	0
542	MIAMFLAP	WPBHFLGR	0	0	0	0	0
543	MIAMFLAP	WPBHFLHH	0	0	1	1	1
544	MIAMFLBC	MIAMFLCA	0	0	0	0	0
545	MIAMFLBC	MIAMFLGR	0	0	0	0	0
546	MIAMFLBC	MIAMFLHL	0	0	0	0	0
547	MIAMFLBC	MIAMFLPL	0	0	0	0	0
548	MIAMFLBC	MIAMFLRR	0	0	0	0	0
549	MIAMFLBC	MIAMFLSO	0	0	0	0	0
550	MIAMFLBC	MIAMFLWM	0	0	0	0	0
551	MIAMFLBC	NDADFLGG	0	0	0	0	0
552	MIAMFLBC	PRRNFLMA	0	0	0	0	0
553	MIAMFLBC	VRBHFLMA	0	0	0	0	0
554	MIAMFLBC	WPBHFLAN	0	0	0	0	0
555	MIAMFLBC	WPBHFLGR	0	0	0	0	0
556	MIAMFLBC	WPBHFLHH	0	0	0	0	0
557	MIAMFLCA	MIAMFLGR	0	0	1	1	1
558	MIAMFLCA	MIAMFLHL	0	0	1	1	1
559	MIAMFLCA	MIAMFLPB	0	0	1	1	1
560	MIAMFLCA	MIAMFLPL	0	0	1	1	1
561	MIAMFLCA	MIAMFLRR	0	0	1	1	1
562	MIAMFLCA	MIAMFLSO	0	0	1	1	1
563	MIAMFLCA	MIAMFLWM	0	0	1	1	1
564	MIAMFLCA	NDADFLGG	0	0	1	1	1
565	MIAMFLCA	PMBHFLCS	0	0	1	1	1
566	MIAMFLCA	PMBHFLFE	0	0	0	0	0
567	MIAMFLCA	PMBHFLMA	0	0	0	0	0
568	MIAMFLCA	PRRNFLMA	0	0	1	1	1
569	MIAMFLCA	VRBHFLMA	0	0	0	0	0
570	MIAMFLCA	WPBHFLAN	0	0	0	0	0
571	MIAMFLCA	WPBHFLGR	0	0	0	0	0
572	MIAMFLCA	WPBHFLHH	0	0	0	0	0
573	MIAMFLHL	MIAMFLGR	0	0	1	1	1
574	MIAMFLHL	MIAMFLPB	0	0	1	1	1
575	MIAMFLGR	MIAMFLHL	1	1	1	1	1
576	MIAMFLGR	MIAMFLME	0	0	1	1	1
577	MIAMFLGR	MIAMFLPB	1	1	1	1	1
578	MIAMFLGR	MIAMFLPL	1	1	1	1	1
579	MIAMFLGR	MIAMFLRR	1	1	1	1	1
580	MIAMFLGR	MIAMFLSO	0	0	1	1	1
581	MIAMFLGR	MIAMFLWM	0	0	1	1	1
582	MIAMFLGR	NDADFLGG	1	1	1	1	1
583	MIAMFLGR	PMBHFLCS	0	0	1	1	1
584	MIAMFLGR	PMBHFLFE	0	0	1	1	1
585	MIAMFLGR	PMBHFLMA	0	0	0	0	0
586	MIAMFLGR	PRRNFLMA	1	1	1	1	1
587	MIAMFLGR	VRBHFLMA	0	0	1	1	1
588	MIAMFLGR	WPBHFLAN	1	1	1	1	1
589	MIAMFLGR	WPBHFLGA	1	1	1	1	1
590	MIAMFLGR	WPBHFLGR	1	1	1	1	1
591	MIAMFLGR	WPBHFLFF	1	1	1	1	1

592	MIAMFLGR	WPBHFLLE	0	0	1	1	1
593	MIAMFLGR	WPBHFLRB	1	1	1	1	1
594	MIAMFLHL	MIAMFLPB	0	0	1	1	1
595	MIAMFLHL	MIAMFLPL	1	1	1	1	1
596	MIAMFLHL	MIAMFLRR	1	1	1	1	1
597	MIAMFLHL	MIAMFLSO	0	0	1	1	1
598	MIAMFLHL	MIAMFLWM	0	0	1	1	1
599	MIAMFLHL	NDADFLGG	1	1	1	1	1
600	MIAMFLHL	PMBHFLCS	0	0	1	1	1
601	MIAMFLHL	PMBHFLFE	0	0	0	0	0
602	MIAMFLHL	PMBHFLMA	0	0	0	0	0
603	MIAMFLHL	PRRNFLMA	0	0	1	1	1
604	MIAMFLHL	VRBHFLMA	0	0	0	0	0
605	MIAMFLHL	WPBHFLAN	0	0	0	0	0
606	MIAMFLHL	WPBHFLGR	0	0	1	1	1
607	MIAMFLHL	WPBHFLHH	0	0	0	0	0
608	MIAMFLME	MIAMFLPL	0	0	1	1	1
609	MIAMFLME	WPBHFLAN	0	0	1	1	1
610	MIAMFLME	MIAMFLPL	0	0	1	1	1
611	MIAMFLPB	MIAMFLRR	0	0	1	1	1
612	MIAMFLPB	MIAMFLSO	0	0	1	1	1
613	MIAMFLPB	MIAMFLWM	0	0	1	1	1
614	MIAMFLPB	NDADFLGG	1	1	1	1	1
615	MIAMFLPB	PMBHFLCS	0	0	1	1	1
616	MIAMFLPB	PMBHFLFE	0	0	0	0	0
617	MIAMFLPB	PMBHFLMA	0	0	0	0	0
618	MIAMFLPB	PRRNFLMA	0	0	1	1	1
619	MIAMFLPB	WPBHFLAN	0	0	0	0	0
620	MIAMFLPB	WPBHFLGA	0	0	0	0	0
621	MIAMFLPB	WPBHFLGR	0	0	0	0	0
622	MIAMFLPB	WPBHFLHH	0	0	0	0	0
623	MIAMFLPB	WPBHFLLE	0	0	0	0	0
624	MIAMFLPB	WPBHFLRB	0	0	0	0	0
625	MIAMFLPL	MIAMFLRR	0	0	0	0	0
626	MIAMFLPL	MIAMFLSO	0	0	1	1	1
627	MIAMFLPL	MIAMFLWM	0	0	1	1	1
628	MIAMFLPL	NDADFLGG	1	1	1	1	1
629	MIAMFLPL	PMBHFLCS	0	0	1	1	1
630	MIAMFLPL	PMBHFLFE	0	0	0	0	0
631	MIAMFLPL	PMBHFLMA	0	0	0	0	0
632	MIAMFLPL	PRRNFLMA	1	1	1	1	1
633	MIAMFLPL	VRBHFLMA	1	1	1	1	1
634	MIAMFLPL	WPBHFLAN	1	1	1	1	1
635	MIAMFLPL	WPBHFLGA	0	0	0	0	0
636	MIAMFLPL	WPBHFLGR	1	1	1	1	1
637	MIAMFLPL	WPBHFLHH	0	0	1	1	1
638	MIAMFLPL	WPBHFLRB	0	0	0	0	0
639	MIAMFLRR	MIAMFLSO	0	0	1	1	1
640	MIAMFLRR	MIAMFLWM	0	0	1	1	1
641	MIAMFLRR	NDADFLGG	0	0	1	1	1
642	MIAMFLRR	PMBHFLCS	0	0	1	1	1
643	MIAMFLRR	PMBHFLFE	0	0	0	0	0
644	MIAMFLRR	PMBHFLMA	0	0	0	0	0
645	MIAMFLRR	PRRNFLMA	0	0	1	1	1
646	MIAMFLRR	VRBHFLMA	0	0	0	0	0
647	MIAMFLRR	WPBHFLAN	0	0	0	0	0
648	MIAMFLRR	WPBHFLGR	0	0	0	0	0
649	MIAMFLRR	WPBHFLHH	0	0	0	0	0
650	MIAMFLSO	MIAMFLWM	0	0	0	0	0
651	MIAMFLSO	NDADFLGG	0	0	1	1	1
652	MIAMFLSO	PMBHFLCS	0	0	1	1	1
653	MIAMFLSO	PRRNFLMA	0	0	1	1	1
654	MIAMFLSO	VRBHFLMA	0	0	0	0	0
655	MIAMFLSO	WPBHFLAN	0	0	0	0	0
656	MIAMFLSO	WPBHFLGR	0	0	0	0	0
657	MIAMFLSO	WPBHFLHH	0	0	0	0	0
658	MIAMFLWM	NDADFLGG	0	0	1	1	1

659	MIAMFLWM	PMBHFLCS	0	0	1	1	1
660	MIAMFLWM	PMBHFLFE	0	0	0	0	0
661	MIAMFLWM	PMBHFLMA	0	0	0	0	0
662	MIAMFLWM	PRRNFLMA	0	0	1	1	1
663	MIAMFLWM	VRBHFLMA	0	0	0	0	0
664	MIAMFLWM	WPBHFLAN	0	0	0	0	0
665	MIAMFLWM	WPBHFLGR	0	0	0	0	0
666	MIAMFLWM	WPBHFLHH	0	0	0	0	0
667	NDADFLGG	PMBHFLCS	0	0	1	1	1
668	NDADFLGG	PMBHFLFE	1	1	1	1	1
669	NDADFLGG	PMBHFLMA	0	0	0	0	0
670	NDADFLGG	PRRNFLMA	0	0	1	1	1
671	NDADFLGG	VRBHFLMA	0	0	1	1	1
672	NDADFLGG	WPBHFLAN	1	1	1	1	1
673	NDADFLGG	WPBHFLGA	1	1	1	1	1
674	NDADFLGG	WPBHFLGR	1	1	1	1	1
675	NDADFLGG	WPBHFLHH	0	0	1	1	1
676	NDADFLGG	WPBHFLRB	1	1	1	1	1
677	NDADFLOL	PMBHFLCS	0	0	0	0	0
678	NDADFLOL	PMBHFLFE	0	0	0	0	0
679	NDADFLOL	PRRNFLMA	0	0	0	0	0
680	PMBHFLCS	PMBHFLFE	0	0	0	0	0
681	PMBHFLCS	PRRNFLMA	0	0	1	1	1
682	PMBHFLFE	PMBHFLMA	1	1	1	1	1
683	PMBHFLFE	PRRNFLMA	0	0	0	0	0
684	PMBHFLFE	WPBHFLAN	0	0	1	1	1
685	PMBHFLFE	WPBHFLGA	1	1	1	1	1
686	PMBHFLFE	WPBHFLGR	1	1	1	1	1
687	PMBHFLFE	WPBHFLHH	0	0	1	1	1
688	PMBHFLFE	WPBHFLLE	0	0	1	1	1
689	PMBHFLFE	WPBHFLRB	1	1	1	1	1
690	PMBHFLMA	PRRNFLMA	0	0	0	0	0
691	PMBHFLMA	WPBHFLAN	0	0	0	0	0
692	PMBHFLMA	WPBHFLGA	0	0	0	0	0
693	PMBHFLMA	WPBHFLGR	0	0	1	1	1
694	PMBHFLMA	WPBHFLHH	0	0	0	0	0
695	PMBHFLMA	WPBHFLLE	0	0	0	0	0
696	PMBHFLMA	WPBHFLRB	0	0	0	0	0
697	PRRNFLMA	VRBHFLMA	0	0	0	0	0
698	PRRNFLMA	WPBHFLAN	0	0	0	0	0
699	PRRNFLMA	WPBHFLGR	0	0	0	0	0
700	PRRNFLMA	WPBHFLHH	0	0	1	1	1
701	VRBHFLMA	WPBHFLAN	0	0	1	1	1
702	VRBHFLMA	WPBHFLGR	0	0	1	1	1
703	VRBHFLMA	WPBHFLHH	0	0	1	1	1
704	VRBHFLMA	WPBHFLGA	1	1	1	1	1
705	WPBHFLAN	WPBHFLGR	1	1	1	1	1
706	WPBHFLAN	WPBHFLHH	0	0	1	1	1
707	WPBHFLAN	WPBHFLLE	0	0	1	1	1
708	WPBHFLAN	WPBHFLRB	1	1	1	1	1
709	WPBHFLGA	WPBHFLGR	1	1	1	1	1
710	WPBHFLGA	WPBHFLHH	0	0	1	1	1
711	WPBHFLGA	WPBHFLLE	0	0	1	1	1
712	WPBHFLGA	WPBHFLRB	1	1	1	1	1
713	WPBHFLGR	WPBHFLHH	0	0	1	1	1
714	WPBHFLGR	WPBHFLLE	0	0	1	1	1
715	WPBHFLGR	WPBHFLRB	1	1	1	1	1
716	WPBHFLHH	WPBHFLLE	0	0	1	1	1
717	WPBHFLHH	WPBHFLRB	0	0	1	1	1
718	WPBHFLLE	WPBHFLRB	0	0	1	1	1
		Total	197	197	408	408	408

Joan Marsh
Director
Federal Government Affairs

Suite 1000
1120 20th Street NW
Washington DC 20036
202 457 3120
FAX 202 457 3110

November 25, 2002

Ms. Marlene Dortch
Secretary
Federal Communications Commission
445 12th Street, SW, Room TWB-204
Washington, DC 20554

Re: Notice of Oral Ex Parte Communication, In the Matter of Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, CC Docket Nos. 01-338, 96-98 and 98-147

Dear Ms. Dortch:

In recent *ex partes*, AT&T has stated that the absolute minimum "crossover" point at which it becomes economically rational for a requesting competitive carrier to consider constructing its own interoffice transport facilities is reached when the carrier can aggregate approximately 18 DS3s of *total* traffic in a Local Serving Office (LSO), including all local, data, exchange access and interexchange traffic routed through the office. At Staff's request, AT&T has developed a detailed explanation of the methodology used to develop that estimate which can be found in Attachment A to this letter.

One of the critical points to note is that in developing the "crossover" point, AT&T did *not* attempt to assess the ILECs' TELRIC costs of providing transport to themselves and their affiliates (and thus the actual cost disadvantage that requesting carriers face in using such facilities to offer services that compete with the ILECs' services). Rather, AT&T compared the costs of provisioning its own transport to its average costs for purchasing ILEC *special access services*, which are admittedly *not* offered at cost-based rates. Indeed, they are priced at exorbitant levels. Thus, this analysis is highly favorable to the ILECs. Given that TELRIC costs are actually between half and two-thirds of the prevailing special access rates, the crossover point for facilities construction necessary for a competitive carrier not paying special access rates to achieve cost parity with the ILECs is between 28 and 36 DS3s of total traffic. *See* Attachment A.

As is also obvious from Attachment A, transport construction represents a high fixed cost. Moreover, nearly two-thirds of interoffice transport costs are fixed.[1] Thus, a carrier cannot be expected to begin construction of its own transport facilities until it is reasonably certain that it will have the necessary scale to recover its construction costs.[2] Otherwise, such construction would simply be wasteful.

In this regard, it is essential that CLECs be able to achieve a cost structure comparable to the ILEC's even where the incumbent's existing prices are well above costs. Where a CLEC has significantly higher costs than the ILEC, the CLEC knows that the ILEC could simply drop its prices below the CLEC's costs, but still above the ILEC's costs, and remain profitable. But by setting prices below the CLEC's costs, the ILEC would make it impossible for the entrant to remain economically viable. The prospect of such a pricing strategy is particularly high where, as is the case for services provided to businesses, the ILEC can price discriminate. This allows the ILEC to lower prices selectively, *i.e.*, only to those customers that could potentially be served by the CLEC, and thus to keep prices high for all other customers. Thus, because transport constitutes a sizeable percentage of the overall cost of telecommunications services, facilities-based entry is generally viable only where a CLEC can self-deploy transport at a cost that is not well in excess of the ILEC's costs.[3]

Finally, a carrier's analysis of whether to construct a fiber backbone ring (and thus provide its own transport) is very different from its analysis as to whether to build a Building Ring or a Customer Lateral off an existing Building Ring to provide the equivalent of a loop for large customer buildings. Accordingly, the amount of committed traffic necessary to support the construction of loops for large business customers – which AT&T has indicated is about 3 DS3s of traffic – is substantially less than the amount needed to support the construction of a backbone ring. The assumption here is that the existing transport ring is justified for other purposes and that the loop is addressed by incrementally attaching a small ring to serve a specific building and, where necessary, a short lateral extension. In support of AT&T's claim that 3 DS3s of traffic is required to support an economically rational lateral fiber build-out, and to ensure that the record is complete, AT&T is also submitting with this *ex parte* a detailed discussion regarding AT&T's estimation of loop construction costs, which is appended as Attachment B.

---

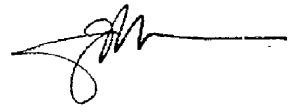
[1] *See ex parte* letter from C. Frederick Beckner to Marlene Dortch dated November 14, 2002, attaching white paper prepared by Professor Robert D. Willig entitled "Determining 'Impairment' Using the *Horizontal Merger Guidelines* Entry Analysis," p. 13.

[2] *Id.* at 5.

[3] *Id.* at 7-8.

Consistent with Commission rules, I am filing one electronic copy of this notice and request that you place it in the record of the above-referenced proceedings.

Sincerely,



Joan Marsh

cc: Michelle Carey
Thomas Navin
Robert Tanner
Jeremy Miller
Dan Shiman
Julie Veach
Don Stockdale

Attachment A

DETAILED DESCRIPTION OF CLECS' COLLOCATION AND BACKHAUL INFRASTRUCTURE COSTS

Introduction:

A CLEC seeking to enter the market using its own facilities must incur collocation and transport costs to "backhaul" traffic from an ILEC serving office where its customers' loops terminate to its own switch. In a recent filing, AT&T explained that the costs associated with collocation and backhaul average about $33,000 per month and that at least 18 DS3s in traffic volume is required to make such investment prudent. This document provides detailed information on how these figures were developed.

In simple terms, collocation costs arise from three key sources: (1) the backhaul facility, (2) the collocation space itself, and (3) the equipment placed within the collocation. The derivation of costs for each component is described below.

Backhaul Facilities:

Backhaul facilities comprise the largest component of a CLEC's infrastructure costs. These include the costs of deploying an interoffice fiber facility in a ring architecture. The absolute cost of such a ring is predominantly a function of the length of the fiber cable, the nature of the structure employed to support the cable (aerial/buried/underground) and the density zone where the fiber facility is deployed. The number of strands deployed impacts the carrier's costs to only a minor degree.[1]

The following table lists the key assumptions underlying AT&T's calculation of structure costs and identifies the HAI material discussing the derivation of the input cost:

Item	Aerial	Buried	U/G	ref (HAI 5.2)
Placement/ft		$ 1.77	$ 16.40	p.102
Added Sheathing/ft		$ 0.20		p.102
Conduit			$ 0.60	p.102
Pull Box (per ft, 1 per 2000 ft)			$ 0.25	p.104
Poles (per ft, 1 per 150ft)	$ 2.78			pp.104-105
U/G excavation/restoration			$ 23.74	p.140
Buried excavation/restoration		$ 6.71		p.143
Total construction	$ 2.78	$ 8.68	$ 40.99	

[1] In fact, the variable cost per fiber strand is $0.032/foot (See HAI 5.2 inputs, page 100) and the average cost of the cable (installation and engineering) is about $1.00 per foot. In sharp contrast, the cost of supporting structures for a cable can be as high as $45/foot (for buried cable) or $75/foot (for underground cable). For the purposes of analysis, although large quantities of dark strands would be deployed with the initial build, no cost of this dark capacity is attributed to the interoffice transport.

The buried and underground (U/G) placement costs in the above table are derived from the HAI model input data. They represent a weighted average of the four highest density zones in the model. These zones were selected because they are the zones covering more metropolitan areas, where CLEC facility construction is most likely to occur first. This is also consistent with the RBOCs' data on existing placements of fiber-based collocations.[2] The following weightings were applied by density zone:

Weighting Factor	
Density Zone	Weighting
0-5	0.00%
5-100	0.00%
100-200	0.00%
200-650	0.00%
650-850	0.00%
850-2250	65.00%
2250-5000	20.00%
5000-1000	10.00%
>10000	5.00%

The weighted unit costs were developed by multiplying the density zone weighting and the appropriate structure placement unit cost (note that the aerial placement was not a function of density zone). The placement unit costs employed and the resulting weighted averages are shown below:

Buried Excavation, Installation, and Restoration (p.143)	
Density Zone	Cost/ft
0-5	$ 1.77
5-100	$ 1.77
100-200	$ 1.77
200-650	$ 1.93
650-850	$ 2.17
850-2250	$ 3.54
2250-5000	$ 4.27
5000-1000	$ 13.00
>10000	$ 45.00
Minimum	$ 1.77
Maximum	$ 45.00
Employed	$ 6.71

U/G Excavation, Installation, and Restoration (p.140)	
Density Zone	Cost/ft
0-5	$ 10.29
5-100	$ 10.29
100-200	$ 10.29
200-650	$ 11.35
650-850	$ 11.88
850-2250	$ 16.40
2250-5000	$ 21.60
5000-1000	$ 50.10
>10000	$ 75.00
Minimum	$ 10.29
Maximum	$ 75.00
Employed	$ 48.90

[2] The RBOC UNE Fact Report (page III-2, Table I) shows that 13% of the RBOCs' wire centers have fiber collocators present. The cut off for the top 13% of RBOC offices is in the range of 36,000 lines. Given that loops are generally less than 3 miles in length, a central office service area will be about 27 square miles (or less in metropolitan areas). Thus the RBOCs' own data show that CLEC facility builds are occurring in areas where line density is no lower than 36,000/27, or no less than about 1,400 lines per square mile. Thus, using the entire 850-2250 line density zone is conservative.

Because structure proportions vary by density zone, it was necessary to establish the weighted average structure presence in order to develop a single weighted average unit cost. The structure proportion by density zone was obtained from HAI 5.2 inputs and are shown below:

Fiber Feeder Structure Proportions (HAI 5.2 p/59)			
density zone	aerial	Buried	U/G
0-5	35%	60%	5%
5-100	35%	60%	5%
100-200	35%	60%	5%
200-650	30%	60%	10%
650-850	30%	30%	40%
850-2250	20%	20%	60%
2250-5000	15%	10%	75%
5000-1000	10%	5%	85%
>10000	5%	5%	90%

These proportions were then multiplied by the above density zone weighting and yielded the following weighted presence of structures for the purposes of the study:

Weighted Structure Distribution			
Density Zone	Aerial	Buried	U/G
0-5	0.0%	0.0%	0.0%
5-100	0.0%	0.0%	0.0%
100-200	0.0%	0.0%	0.0%
200-650	0.0%	0.0%	0.0%
650-850	0.0%	0.0%	0.0%
850-2250	13.0%	13.0%	39.0%
2250-5000	3.0%	2.0%	15.0%
5000-1000	1.0%	0.5%	8.5%
>10000	0.3%	0.3%	4.5%
Weighted	17.3%	15.8%	67.0%

The cost of the fiber cable placed within the structure was also derived from HAI inputs. Fiber feeder cost were used as a proxy (see HAI 5.2 inputs, page 100):

	Fixed (per cable)/foot		Variable
	Installation	Engineering	per strand
Buried	$ 0.970	$ 0.040	$ 0.030
Aerial	$ 0.880	$ 0.040	$ 0.037
Underground	$ 1.020	$ 0.040	$ 0.032

Finally, it was necessary to establish the lives for the various types of facility placement, the salvage and the annual maintenance cost in order to quantify the full cost of the conductor. These inputs are listed below, together with the source:

Item	Aerial	Buried	U/G	ref (HAI 5.2)
Life	26.14	26.45	25.91	p.129
Salvage	-17.5%	-8.6%	-14.6%	p.129
Maintenance	0.7%	0.8%	0.6%	FCC Synthesis Model Input

In order to generate a single set of factors covering the three alternative structures, the individual results were combined as a weighted average. This was accomplished by weighting each unit cost and the salvage, life and maintenance factor by the proportion of structures in the density zones under consideration. This was done by using the weighted average structure distribution developed above.

The following elements were the resulting weighted element inputs:

Weighted Life	26.03	
Weighted Salvage	-14.1%	
Weighted Maintenance	0.67%	
Total Installed Cost	$ 30.34	per foot
	$ 0.033	per strand per foot

In order to quantify the investment, the total length of cable and the total number of strands needed to be specified. For the analysis, an average span cost assignment equivalent to 8.94 miles was employed, based upon AT&T's experience.[3] Thus, the total assigned investment is $1.435 million per span.[4] The associated monthly maintenance expense is 0.67% of the investment amount assigned to the node divided by 12, or $798 per month per node.[5]

The monthly capital recovery was amortized over the life of the investment after the investment was grossed-up for the net salvage. A 14.24% cost of money was employed, which is very conservative, as it does not reflect the higher risk associated with the CLEC

[3] By the end of 2001 AT&T had deployed 17,026 route miles of local fiber in which 1,905 spans were active (unique point pairs). Accordingly, the average route miles per active span in AT&T's network is 8.94 miles. While this does not mean that each physical segment is that length, it provides a reasonable means to allocate, among active uses, the cost of a shared facility.

[4] The calculation is (8.94*($30.34 + 2*.033)*5280) for a total of $1.435M.

[5] The calculation is ($1.435M*0.67%)/12.

operations (compared to the 10% cost of money assumed for the incumbents).[6] These factors yielded a monthly investment recovery cost of $19,937 for the facility.[7] The total monthly costs for the facility, including maintenance, is $20,806 per month. Another 5% was added to account for non-income tax coverage requirements for a total of $21,771 per month.

Collocation Space:

Collocation costs are simply the costs associated with renting and securing conditioned Central Office space within an ILEC office. The collocation space is the area where the CLEC places its transmission equipment and terminates its interoffice facility for cross-connection to other interoffice or loop facilities. The collocation costs are comprised of two main components: (1) the cost of initially preparing and securing the space, and (2) the on-going cost of renting the space (which not only includes the physical space but also heating, ventilation, air conditioning and power).

The space preparation cost is treated as an investment and recovered over the life of the equipment placed within the collocation. For the purposes of this analysis, 10.24 years was employed, which is the average useful life of digital circuit equipment (see HAI 5.2 inputs, page 129). The same cost of money and treatment of taxes employed for the facility analysis above was utilized here as well. Neither gross salvage nor cost of removal were assumed.

Because HAI inputs are oriented to ILEC operations, no collocation costs are reflected as cost inputs. Accordingly, internal estimates of collocation preparation costs were employed. Internal estimates indicated that the preparation costs are in the range of $200,000 to $250,000. This, in turn, yields a $3,488 monthly cost for the preparation alone.

The monthly physical collocation rental costs were developed from ILEC billing to AT&T. When analyzed on the LEC-LATA level, the average monthly expense was $4,083 although the true mean could be expected to lie anywhere in the range of $3,579 to $4,586 (at a 95% level of confidence). The average figure was employed for the analysis.[8] Accordingly, the monthly costs attributable to collocation in total were $7,950 per month after taking into account taxes other than income taxes.

---

[6] For simplicity in the study, a pre-tax cost-of-money was employed. The figure is entirely consistent with the ILEC cost of money of 10.01% employed in the HAI model. The 14.24% cost of money is derived by the following equation: %debt*cost of debt+%equity*cost of equity/(1-effective income tax rate). In this instance the % debt was 45%, the cost of debt was 7.7%, the cost of equity was 11.9% and the effective income tax rate was 39.25%.

[7] The calculation was the EXCEL PMT function: @PMT((14.24%/12),(26.03*12),(($1.435M)*(1-(-14.1%)) . The multiplication by 1.1418 grosses the initial investment up for gross salvage less cost of removal which, in this case, is negative.

[8] As with other expense, this figure was increased by 5% to account for taxes other than income taxes.

Transmission Equipment:

When operating at the interoffice transport level, there is relatively little equipment placed within the collocation. The necessary equipment includes: optical path panels (to terminate and cross-connect the fiber facility), optical multiplexers, and power distribution (e.g., power filtering and fuses) equipment.

The optical path panel costs are described in HAI 5.2 inputs (p.97). The panels cost $1,000 each, and the cost of cross–connecting to the equipment is $60/strand. In this instance, 2 cross-connections are required per panel (one in and one out) and 2 panels are employed (one for each strand to assure no single point of failure). Accordingly, the capital investment for the panels is $2,240.

The HAI input lists the investment associated with an optical multiplexer (see page 96). The base unit cost is $40,000 (12 DS3 capacity) and the fully equipped unit cost is $50,000 (48 DS3s). Thus, the investment is $40,000, $43,333.33, $46,666.67 or $50,000 depending upon whether 12, 24, 36, or 48 DS3s are in service. This is the only aspect of the investment that is demand sensitive (i.e., if fewer than 48 DS3s are assumed) but this amounts to little more than $3 per DS3. Two multiplexers are assumed to provide redundancy and, as set forth in HAI 5.2 inputs, it is assumed that there is $1,760 invested to engineer, furnish and install each multiplexer and associated optical panel (see page 97). The total investment in the optical multiplexers (24 DS3s assumed) is $90,187.[9]

The installed cost of the last remaining equipment item – the battery distribution fuse bay (BFDB) – is estimated at $62,500.[10]

The total installed equipment cost is therefore $2,240 for the distribution panels, $90,187 for the multiplexers and $62,500 for the BFDB, yielding a total of $154,927. Amortizing this amount over the average useful life of circuit equipment, applying a 1.69% net salvage (HAI 5.2 p 130) and the same cost of money as above, yields an investment recovery cost of $2,443 per month. Maintenance costs are derived by applying a 2% annual maintenance factor (see FCC Synthesis Model for circuit equipment) to the $154,927 gross investment (with the result divided by 12), for a maintenance cost of $258 per month. Combining these two figures and providing for 5% non-income tax related costs yields a total cost of $2,836 per month.

Rationale for the 18 DS3 Minimum:

Adding all of the above figures yields a monthly average cost of $32,557. Given that the monthly costs of facility-based collocation are effectively insensitive to volume, the average unit cost is simply the $32,557 monthly figure divided by the number of DS3s in service.

---

[9] 2*(43,333.33+1760)

[10] This is an internal estimate, because there is no equivalent identified in the HAI inputs.

Assuming that unbundled transport is not available as an unbundled network element, and in the absence of market-based competition for connectivity between the necessary points, a CLEC's only practical alternative to building its own facilities is to use ILEC special access service. In today's market, given the continuing imposition of use and commingling restrictions, this special access would be likely be bought under a term plan of either three or five years. Assuming that the special access interoffice mileage would be equivalent to the average span, then a comparison of alternatives is possible. Note, however, that this is *not* a comparison between actual ILEC costs for existing transport facilities and anticipated CLEC costs for new construction. Rather, it is a comparison between anticipated CLEC construction costs and ILEC special access rates, which are admittedly well above the ILEC's costs.

AT&T's experience is that a DS3 interoffice facility plus one channel termination[11] will cost approximately $2,363 per month under a 36-month term agreement and $1,780 per month under a 60-month term agreement. Thus, at least 14 DS3 would be required to break-even compared to a 36-month term special access rate and at least 18 DS3s would be required compared to a 60-month term special access rate. Given that the collocation was assumed to have a 10-year useful life, comparison to the 60-month term agreement was judged most relevant, making the 18 DS3 figure the appropriate comparison.

In fact, AT&T has demonstrated that special access is priced (exorbitantly) well above economic cost. Further, AT&T has demonstrated that a carrier cannot viably enter a local market on a facilities-basis if it incurs costs for a key input that are well above the cost that the ILEC itself incurs for that input. Given that the ILEC's economic costs of transport are in the range of half to two-thirds of prevailing special access rates, then 28 to 36 DS3s would be required to "prove-in" a transport facilities build if the competitive carrier were to achieve cost parity with the ILEC.[12]

[11] If a facility is not build, not only is the interoffice transport required but a connection from the final LSO to the switch location (i.e., a high capacity channel term or entrance facility) is also required.

[12] If the unit cost alternative were 50% to 67% lower, then the revised break-even point is simply the originally calculated break-even point divided by the preceding price ratio.

Attachment B

ESTIMATING THE COST OF LOOP CONSTRUCTION

Introduction:

Loop facilities are one of the most basic components of a telecommunications network and are used in the provision of all services, whether switched or dedicated. These facilities provide the physical connection between the customer location and the network of the serving carrier. Because much of the investment is dedicated to one or a very small number of customers, and because the facilities have very high initial costs to deploy, only the very largest customer locations (in terms of service demand) can be economically reached through an over-build. The focus of this paper is upon such "large" customer locations. As shown below, a CLEC must have the potential to serve a large number of buildings (about 20) within a consolidated geographic area, with each building generating at least 3 DS3s of demand before a build is economic. Even then, serving the location will involve significant investment – approximately $6.7M for the building ring, plus approximately $3M for the premises and node equipment. And all of this analysis assumes that the CLEC considering the build can reach the buildings in the area with rights of way and building access comparable to the ILEC.

Before discussing the costs of building it is first important to share a common understanding of the general architecture of the outside plant employed by a CLEC. Figure 1 below provides a general representation of this plant:

Typical Configuration of "Local" Fiber Rings

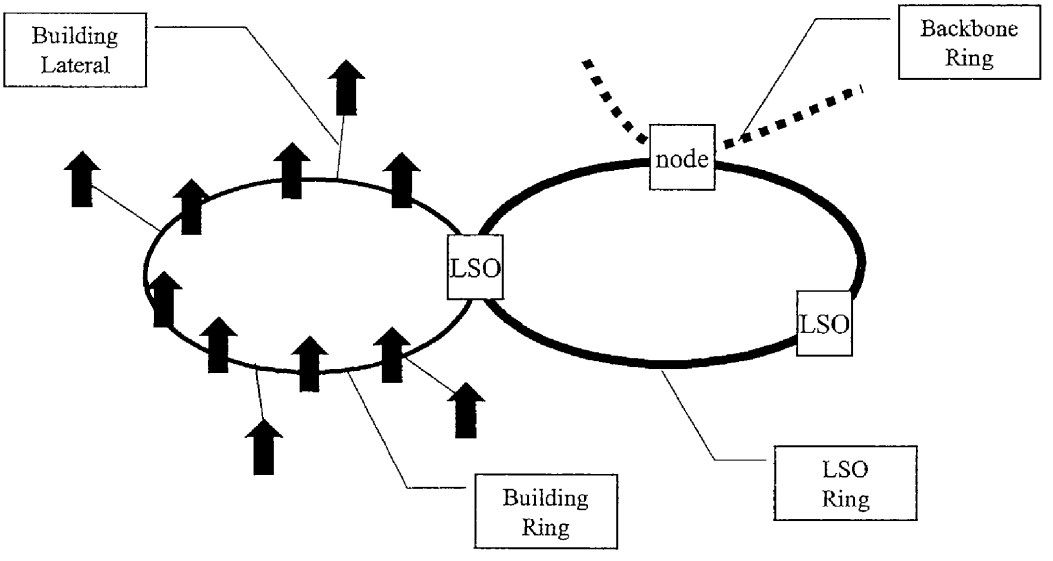


Figure 1.

A self-provided CLEC "loop" is actually composed of two to three interconnected facilities. The first is the LSO Ring. This ring connects the network locations (*e.g.*, facility/switch nodes and collocations) within a metropolitan area. The cost of connecting these locations is discussed in a related paper quantifying the costs of transport and will not be repeated here.[1] The LSO Ring interfaces with two other ring types: backbone rings and building rings. Because the loop is constructed to reach the service provider's network, which effectively starts and ends at the backbone ring (for dedicated services) or the switch connecting to the backbone ring (for switched services), the costs of the backbone ring are not relevant to the discussion of loop costs. On the other hand, the building rings are a significant consideration in quantifying loop costs. A Building Ring extends the CLEC network from a very aggregated demand point (*i.e.*, the facility-based collocation in an LSO) to (or near) customers' premises.

The final component of the loop infrastructure is the Customer Lateral. When a Building Ring is constructed, every effort is made to run the ring facility directly though critical buildings. In fact, Building Rings tend to be about 30 route miles long and tend to have 10 to 15 buildings on each.[2] Whether or not a building is placed on a ring is highly dependent upon factors such as the following: (1) whether the location was identified as a "high volume" location early enough in the planning to permit its inclusion, (2) whether access to the building could be secured from the landlord in a timeframe consistent with the overall project time line, and (3) whether building access costs were not judged prohibitive. If a building is not placed directly on the building ring as part of the initial build, it may still be possible to add a building at a later point. Such buildings are added by extending a short segment of fiber that is spliced to the ring and extends to the building. Because these segments are not shared with any other users other than the single building connected, and because the segment generally is not protected via diverse routing of redundant facilities, laterals tend to be very short.[3]

To recap: an LSO Ring is a highly aggregated facility that is shared among a wide variety of customer locations and services; a Building Ring is a facility whose use is shared among 10 to 15 buildings; a Customer Lateral is a facility useful only for the particular building connected.

In order to quantify the cost of these loops, a general understanding of the essential equipment components is important. The key components are shown in Figure 2:

---

[1] See Attachment A to this Submission, referred to herein as the Transport *ex parte*.

[2] These characteristics tend to vary by specific metropolitan area. However, the AT&T Outside Plant Engineering organization believes these parameters reasonably reflect the conditions across its local markets. Other carriers may have different experiences due to different market strategies and less robust local fiber facility deployment.

[3] AT&T seeks to limit laterals to less than 500 feet in order to contain customer-dedicated investment and to reduce the risk of facility damage (*i.e.*, the longer the facility the greater the probability that some form of mechanical harm may be experienced).

Typical Configuration of An On-Net Building "Loop"

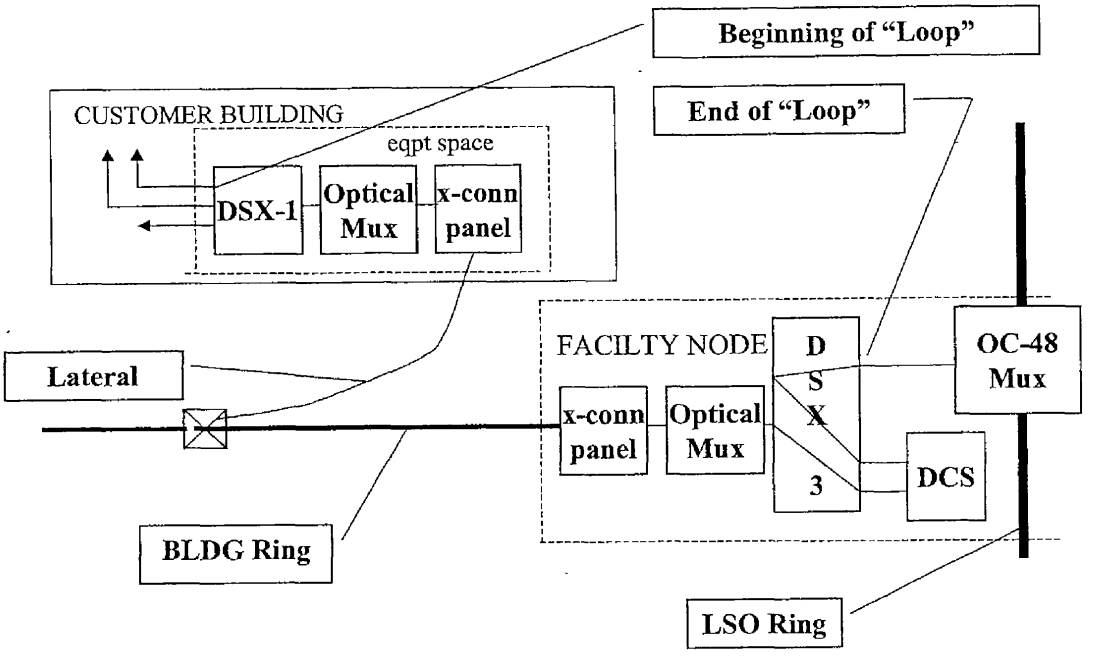


Figure 2

The functions of the individual components are relatively straightforward:

DSX-1 or DSX-3: Provides a cross-connection point between facilities operating at the DS1 level (DSX-1) or the DS3 level (DSX-3) without requiring that the facility be de-multiplexed to a lower bandwidth. The DSX frames allow relatively non-disruptive addition and removal of equipment, reasonable physical test access, and provide efficient means for cross-connecting circuits.

Optical Mux (and OC-48 Mux): Transmission equipment that aggregates (*i.e.*, multiplexes or "muxes") multiple lower bandwidth services onto a very high bandwidth facility. An Optical mux generally also supports signal conversions between optical and electrical based transmissions.

Digital Cross-Connection System (DCS): Provides for the grooming of facilities without the need to de-multiplex and re-multiplex the individual "channels" of the connecting facilities. For example, it permits the moving of DS1 #5 contained within DS3 #2 in facility segment A to DS1#17 within DS3 #3 on facility segment B. DCS allows improved utilization of very high capacity facilities.

X-conn Panel (or Fiber Distribution Panel): Provides a point of termination and cross-connection of a fiber facility to transmission equipment that manages the communications carrier within a fiber conductor.

Quantification of Cost of Self-provided Loops:

The cost of a self-provided loop can be conveniently analyzed based upon the following categories:

Lateral facility
Building Ring facility
LSO Ring transport
Building location costs
Node costs (interfacing between a Building Ring and an LSO Ring)

Each of these categories is reasonably subdivided into subcategories of investment costs, maintenance costs, and taxes.

Customer Lateral Facility:

As discussed above, the lateral facility is a short fiber that is dedicated to an individual building connected to a Building Ring. Because CLEC-provided loop facilities are typically placed in dense metropolitan areas, such facilities are virtually always placed in an underground structure. Consistent with the LSO Ring analysis, the building connected will be in one of the four most dense cells as defined in the HAI 5.2 model. Accordingly, the unit cost for the fiber lateral is the same as that underlying the analysis of the LSO Ring costs and is $40.99 per foot and $0.033 per strand foot. A twelve-strand fiber is assumed although this assumption does not materially impact the overall cost of the fiber lateral. Accordingly, the gross investment is $20,690[4] and converts to an investment cost of $342 per month.[5] As with the LSO transport model, a 0.61% per year per gross investment dollar maintenance assumption is applied, and 5% of investment and maintenance costs were added to cover non-income taxes. This results in a maintenance expense of about $11 and tax expense of $17 per month associated with the lateral. The total cost is $370 per month.[6]

---

[4] The actual calculation is as follows: 500 feet* ($40.99/foot+ 12 strands *($0.033/strand-foot)).

[5] The calculation is the same as employed in the LSO transport cost analysis in the Transport *ex parte* and employs the EXCEL PMT function. The actual calculation is PMT(cost of money, recovery period, gross investment*(1-salvage)). The cost of money employed in this analysis is based upon the pre-tax cost of money employed in the LSO transport cost analysis (*i.e.*, 14.24%) increased by 20% to account for the greater risk associated with the loop plant investment (*i.e.*, the actual cost of money employed is 17.09% per year). The recovery period for the building-dedicated investment is 6 years. Net salvage is the same as that used for fiber facilities and is identical to that underlying the LSO transport analysis for underground fiber (*i.e.*, -14.58%).

[6] If the lateral life is assumed to be the same as that of an underground fiber, the overall cost declines to $91 per month, distributed $76 for investment recovery, $11 for maintenance and $4 taxes. However, such a long life is unreasonably conservative given the volatile nature of demand from a single customer location (customer contracts typically run only 2 to 3 years). Accordingly, even the 6-year figure assumes at least one contract renewal, and the figure presented is this footnote is offered strictly for sensitivity analysis purposes.

Building Ring:

As stated above, Building Rings are typically about 30 miles in total length and connect 10 to 20 buildings to the LSO transport node. As with the Customer Lateral, the Building Ring is assumed to be an underground fiber placed within one of the four highest density zones of the HAI model. Accordingly, the same unit cost per foot and per strand is employed as was used for determining the investment cost of the lateral. The cost modeling assumes 2 strands per building. Accordingly, the gross investment in the Building Ring is about $6.7 million.[7] Because this facility is shared among 20 buildings, the assigned investment cost per building is $334,952 of gross investment. Note that the maximum number of buildings typically placed on a ring was employed. As a result, this generates the lowest likely gross investment attribution.

A consistent approach was used to develop the monthly cost for the Building Ring component as was employed for the Customer Lateral. The only exception is that the life for the Building Ring was assumed to be that of underground fiber, *i.e.*, about 26 years, rather than the 6-year life for the lateral. While the life of an individual lateral may be relatively short, the assumption here is that as individual buildings drop off the ring (due to lack of demand) others are added to replace them, resulting in a stable number of on-net buildings. The monthly investment recovery cost is $5,533 and the associated monthly maintenance and tax-related costs are $170 and $285, respectively. The total Building Ring assigned cost is, therefore, $5,988 per month per building.

LSO Ring Transport:

The last component of physical connectivity associated with the CLEC loop is the LSO Ring transport. This is the same connectivity that would be employed by any other service configuration or loop connecting to the CLEC network through the node. As such, the cost previously developed for the Transport *ex parte* is employed here. Because the costs are basically fixed at the node, the issue is simply one of determining the total DS3 volume presented to the node and then determining the number of DS3s that an individual building contributes. For the purposes of this analysis, the fixed costs of the node are assumed to be the same as that developed in the Transport *ex parte* or $32,557 per month. Furthermore, in order to present the most conservative evaluation of the cost of a CLEC loop, the analysis assumes that the facility is used to 90% of capacity, or $740 per DS3 per month.

Customer Location Costs:

The customer location costs are primarily equipment and space related. The equipment costs are related to those elements shown at the customer location in Figure 2: the DSX-1, the Optical Mux and the Fiber Distribution Panel (FDP). The FDP investment is the

[7] The calculation is as follows: 30 miles * 5280 ft/mi*($40..99/ft + 20 buildings*(2 strands/building)*($0.033/strand-foot).

same as that used in the Transport *ex parte*, *i.e.*, $1000 per panel and 2 connections per multiplexer at $60 per connection ($1120 per connected panel). The Optical Mux cost is that for an OC-3 and is found in the HAI inputs (p. 96). The common cost is $20,000 plus $500 per 7 DS1s, up to a maximum of 84 DS1s. No cost was available in HAI for the DSX-1; however, costs were available on the ADC website for such equipment (www.adc.com). Specifically, a DSX-1 shelf with a capacity of 84 DS1s is priced at $2,085 (see item: Di M2GU1). Most customer building connections are at the OC-3 level. Accordingly, the investment at a customer premise is $23,205 plus $500/7 DS1s. This converts to a monthly cost of $407 plus $9 for every 7 DS1s active.[8] Thus, the total monthly investment cost for equipment at a customer location is in the range of $416 to $513 if from 1 to 84 DS1 (84 DS1s equal 3 fully utilized DS3s) are active. This investment cost results in a maintenance cost of $40 to $49 and taxes of $23 to $28 per month.

The final cost that must be considered is that for space rental. For the purposes of this analysis, space rental at each building adds about $678 per month.[9] Because no site preparation costs are explicitly included, there is no associated gross investment and, accordingly, no maintenance assumed. Taxes, however, account for $34/month.

The customer location costs are summarized below:

Item	Investment Cost	Maintenance	Other	Taxes	Total
Equipment	$416 to $513	$40 to $49	$0	$23 to $28	$479 to $590
Space	$0	$0	$678	$34	$712
Total at Premise	$416 to $513	$40 to $49	$678	$57 to $62	$1,191 to $1,302

Node Costs:

As shown in Figure 2, the equipment at the node necessary to interface with the LSO Ring transport included a FDP, an OC-3 multiplexer, a DSX-3 cross-connection device and a DCS. The FDP and OC-3 have the same cost, maintenance and tax implications as for the customer premises. The cost of the DCS is found in HAI 5.2 inputs (p. 99) and reflects a gross investment of $30,000 per DS3. HAI inputs do not explicitly list a DSX-3 cost. The same ADC website referenced for the DSX-1 also contains a cost for a DSX-3 (see DSX-4B-24-7A), which is $8,463 and can accommodate 24 DS3s. Because this function is shared at the node, rather than incurring the full cost of a shelf, the study

[8] The equipment lives, gross salvage and maintenance factors are those used for circuit equipment as described in the Transport *ex parte*, *i.e.*, 10.24 years, -1.69% and 2%, respectively.

[9] AT&T's internal records relating to common space rentals indicate a national average monthly cost of $678.30.

assumes that sharing occurs and that the cost will be incurred on a DS3 basis (or $353 per DS3 port). Based on Figure 2, 5 ports are required per DS3 at the node. Accordingly, the gross investment formula for the node is $21,120+$500 per 7 DS1s+ $30,863 per 84 DS3s.[10] Thus, the node costs are largely a function of the number of DS3s delivered from the building. The table below summarizes the node related costs for various demand levels at the building:

Building Volume (DS1s)	investment cost	maintenance	taxes	total
0-7	$922	$87	$50	$1059
8-14	$931	$88	$51	$1070
15-21	$940	$89	$51	$1080
22-28	$949	$90	$52	$1091
29-35	$1516	$144	$83	$1743
36-42	$1525	$145	$83	$1753
43-49	$1534	$145	$84	$1763
50-56	$1543	$146	$84	$1773
57-63	$2110	$200	$115	$2425
64-70	$2119	$201	$116	$2436
71-77	$2128	$202	$116	$2446
78-84	$2137	$203	$117	$2457

[10] The investment cost equation, based on the same life and salvage assumptions applied to the customer node equipment is $355+$558/DS3+$9/7 active DS1. The fixed cost is slightly different compared to the customer premises, because rather than one FDP there are two and the cost of those two are shared among 20 buildings.

With all the components of the cost now established, it is possible to develop the total cost of connecting a building that provides varying levels of demand:

	Monthly Costs By Source						
DS1s active	cust location eqpt	lateral	bldg ring	node eqpt	LSO Backhaul	total	avg cost/DS1
1	$ 1,191	$ 370	$ 5,988	$ 1,059	$ 740	$ 9,348	$ 9,348
7	$ 1,191	$ 370	$ 5,988	$ 1,059	$ 740	$ 9,348	$ 1,335
14	$ 1,201	$ 370	$ 5,988	$ 1,070	$ 740	$ 9,369	$ 669
21	$ 1,211	$ 370	$ 5,988	$ 1,080	$ 740	$ 9,389	$ 447
28	$ 1,221	$ 370	$ 5,988	$ 1,091	$ 740	$ 9,410	$ 336
35	$ 1,231	$ 370	$ 5,988	$ 1,743	$ 1,480	$ 10,812	$ 309
42	$ 1,241	$ 370	$ 5,988	$ 1,753	$ 1,480	$ 10,832	$ 258
49	$ 1,251	$ 370	$ 5,988	$ 1,763	$ 1,480	$ 10,852	$ 221
56	$ 1,261	$ 370	$ 5,988	$ 1,773	$ 1,480	$ 10,872	$ 194
63	$ 1,271	$ 370	$ 5,988	$ 2,425	$ 2,220	$ 12,274	$ 195
70	$ 1,281	$ 370	$ 5,988	$ 2,436	$ 2,220	$ 12,295	$ 176
77	$ 1,291	$ 370	$ 5,988	$ 2,446	$ 2,220	$ 12,315	$ 160
84	$ 1,301	$ 370	$ 5,988	$ 2,457	$ 2,220	$ 12,336	$ 147

Having the total cost and unit cost for a constructed loop now permits an evaluation of when it is reasonable to substitute a build for an alternative facility. Because AT&T has generally been unable to obtain high capacity UNEs, particularly UNE DS1 loops multiplexed onto UNE DS3 facilities, the only possible comparison is to ILEC special access.

Special Access Alternative:

Other than access to a UNE loop, the alternative to constructing loops is a special access configuration from the customer premises to the CLEC network. Given the volumes, the configuration would most likely be a combination of DS1 channel terminations, DS3:1 multiplexing and DS3 interoffice transport. The approximate cost of such a configuration, under a long term pricing arrangement, is approximately the following:

DS1 Channel Term (with NRC amortized): $113 to $127 per DS1/month
DS3 fixed with mux (NRC amortized): $850 to $1,018 per DS3/month
DS3 interoffice mileage: $53 to $73 per mile per DS3/month

The figure represents the approximate rate, averaged across RBOC territories, for a three-year term agreement, and the lower figure represents the average rate for a 5-year term agreement. This is, therefore, a highly conservative estimate of the ability of a CLEC to self-deploy a loop because special access rates are well-above the RBOCs' economic

costs. As AT&T has explained, a CLEC needs to achieve costs comparable to the RBOC's economic costs in order to deploy economically its own facilities.

These unit costs can be used to develop the average (per DS1) cost of a special access configuration. The only additional information required is the inter office mileage. For the analysis, the same mileage was used as is employed for the transport *ex parte* (8.94 miles). The following table compares the average cost per DS1 under an overbuild assumption (build) compared to the average cost of obtaining the equivalent capacity as a DS1 Channel Termination + DS3 interoffice transport using access obtained under a 5-year term agreement (SA-5) or a 3-year term agreement (SA-3). The table shows that the average cost of the self-provided loops are not less than special access pricing until a third DS3 is activated (each DS3 represents 28 DS1s). At 63 active DS1 loops, the build has a superior cost structure compared to the 3-years special access average unit cost ($195/DS1 compared to $206/DS1). Similarly, compared to the 5-year special access average unit cost, it is not until the 77th DS1 is activated that the build unit cost are an improvement over the special access rate ($160/DS1 compared to $165/DS1). All this leads to the conclusion that a CLEC requires at least 3 DS3s of customer demand at a building before a facility build can generally be proven in as financially prudent.

DS1s	build	SA-5	SA-3
7	$ 1,335	$ 302	$ 365
14	$ 669	$ 208	$ 246
21	$ 447	$ 176	$ 206
28	$ 336	$ 160	$ 187
35	$ 309	$ 189	$ 222
42	$ 258	$ 176	$ 206
49	$ 221	$ 167	$ 195
56	$ 194	$ 160	$ 187
63	$ 195	$ 176	$ 206
70	$ 176	$ 170	$ 198
77	$ 160	$ 165	$ 192
84	$ 147	$ 160	$ 187

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing PUBLIC Rebuttal Testimony and Exhibits of Gary J. Ball on behalf of the Florida Competitive Carriers Association has been provided by (*) hand delivery, (**) email and U.S. Mail this 21st day of January 2004, to the following:

(*) (**)Adam Teitzman, Staff Counsel
Division of Legal Services
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

(**) Susan Masterton
Sprint Communications Company
1313 Blairstone Road
Post Office Box 2214
MC: FLTLHO0107
Tallahassee, Florida 32301

(**) Donna Canzano McNulty
MCI WorldCom
1203 Governors Square Boulevard
Suite 201
Tallahassee, Florida 32301

(**) Norman H. Horton, Jr.
215 South Mornoe Street
Tallahassee, Florida 32302-1876

(**) Tracy Hatch
AT&T Communications of the
Southern States, LLC
101 North Monroe Street
Suite 700
Tallahassee, Florida 32301

(**) Michael Gross
Florida Cable Telecommunications
246 East 6th Avenue
Tallahassee, Florida 32302

(**) Matthew Feil
Florida Digital Network, Inc.
390 North Orange Avenue, Suite 2000
Orlando, Florida 32801

(**) Jeffrey J. Binder
Allegiance Telecom, Inc.
1919 M Street, NW
Washington, DC 20037

(**) Floyd R. Self
Messer, Caparello & Self
215 South Monroe Street, Suite 701
Tallahassee, FL 32301

(**) Nanette Edwards
ITC^DeltaCom
4092 S. Memorial Parkway
Huntsville, Alabama 35802

(**) Jake E. Jennings
Senior Vice-President
Regulatory Affairs & Carrier Relations
NewSouth Communications Corp.
NewSouth Center
Two N. Main Center
Greenville, SC 29601

(**) Jon C. Moyle, Jr.
Moyle, Flanigan, Katz, Raymond
& Sheehan, P.A.
The Perkins House
118 North Gadsden Street
Tallahassee, FL 32301

(**) Rand Currier
Geoff Cookman
Granite Telecommunications, LLC
234 Copeland Street
Quincy, MA

(**) Andrew O. Isar
Miller Isar, Inc.
2901 Skansie Avenue, Suite 240
Gig Harbor, WA 98335

(**) Scott A. Kassman
FDN Communications
390 North Orange Avenue
Suite 2000
Orlando, FL 32801

(**) Rabinai Carson
Xspedius Communications
5555 Winghaven Blvd., Suite 3000
O'Fallon, MO 63366-3868

(**) Bo Russell
Vice-President
Regulatory and legal Affairs
NuVox Communications, Inc.
301 North Main Street
Greenville, SC 29601

Joseph A. McGlothlin
Vicki Gordon Kaufman
McWhirter, Reeves, McGlothlin, Davidson,
Kaufman & Arnold, P.A.
117 South Gadsden Street
Tallahassee, Florida 32301
(850) 222-2525
(850) 222-5606 (fax)
jmcglothlin@mac-law.com
vkaufman@mac-law.com

Attorneys for Florida Competitive Carriers
Association