BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for Arbitration of Amendment to Interconnection Agreements With Certain Competitive Local Exchange Carriers and Commercial Mobile Radio Service Providers in Florida by Verizon Florida Inc.	)	Docket No. 040156-TP

PANEL REBUTTAL TESTIMONY OF
THOMAS E. CHURCH
WILLIAM E. LOUGHRIDGE
WILLETT RICHTER

ON BEHALF OF

VERIZON FLORIDA INC.

MARCH 25, 2005

WITNESS BACKGROUND

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

A. My name is Thomas E. Church. I am employed by Verizon as Senior Product Manager for Subloops. My business address is 13930 Minnieville Road, Woodbridge, Virginia 22193.

Q. PLEASE DESCRIBE YOUR WORK EXPERIENCE.

A. I have more than 20 years experience in the telecommunications industry in a variety of technical and management positions. Prior to my current position, I served as a station technical controller, communications control technician, customer service engineer, central office technician, supervisor, project manager and product manager.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. I will address the CLECs' Direct Testimony on unbundled access to subloops (Issue 18).

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

A. My name is William E. Loughridge. I am employed by Verizon as Senior Product Manager. My business address is 600 Hidden Ridge, Irving, Texas 75038.

Q. PLEASE DESCRIBE YOUR EDUCATION AND WORK EXPERIENCE.

A. I have a Master of Business Administration degree and a Bachelor of Arts degree in economics and am currently pursuing a second master's degree in public accounting. I am responsible for the product development and management of analog and high-capacity Unbundled Loops.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. I will address the CLECs' Direct Testimony on unbundled access to IDLC-fed loops (Issue 16) and routine network modifications (Issue 22).

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

A. My name is Willett Richter. I am employed by Verizon as Senior Staff Consultant-Network Engineering. My business address is 85 High Street, Pawtucket, Rhode Island 02860.

Q. PLEASE DESCRIBE YOUR EDUCATION AND WORK EXPERIENCE.

A. I received my Bachelor's degree in Computer Science from Clarkson University in 1986 and my Masters of Business Administration degree from Bryant College in 2000. I have been employed by Verizon for over 17 years in a variety of capacities, primarily engineering. My positions in Verizon have included Outside Plant Engineer and Network Planner. In 1993 I was assigned the position of Technical Transfer Manager in Southeast Asia (Bangkok), where I was responsible for part of the

design and construction of a 2.6 million line expansion project in the Bangkok metropolitan area. Since returning to the United States in 1995, I have worked as a Strategic Business Planner, Staff Director and Engineering Manager in Massachusetts, Rhode Island and Maine.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. I will testify on the engineering aspects of the issues to which Messrs. Church and Loughridge are testifying.

Issue 16: *How should CLEC requests to provide narrowband services through unbundled access to a loop where the end user is served via Integrated Digital Loop Carrier (IDLC) be implemented?*

Q. DOES VERIZON AGREE THAT IT HAS AN OBLIGATION TO PROVIDE CLECS UNBUNDLED ACCESS TO HYBRID (COPPER/FIBER) LOOPS WHERE THE CUSTOMER IS SERVED BY AN IDLC SYSTEM?

A. Yes. Under the *TRO*, a CLEC may obtain unbundled access to an IDLC-fed hybrid loop to provide narrowband service. Specifically, the ILEC must provide a voice-grade transmission path between the central office and the customer's premises. (*TRO*, ¶ 296.) As Mr. Nurse testifies, the FCC recognized that access to IDLC-fed loops presents technical issues that do not exist with respect to access to hybrid loops served by Universal DLC ("UDLC") systems, because Integrated DLC systems are integrated directly into the ILECs' switches. (*See* Nurse

DT, at 53; TRO, ¶ 297. Therefore, "a one-for-one transmission path between an incumbent's central office and the customer premises may not exist at all times." (*TRO*, ¶ 297.) Because of this limitation, the FCC recognized that in most cases, access would be either through a spare copper facility or through a UDLC system. If neither of these options is available, the ILEC must "present requesting carriers a technically feasible method of unbundled access." (*Id.*)

Q. DOES MR. NURSE CLAIM THAT VERIZON'S PROPOSAL FOR ACCESS TO IDLC-FED LOOPS VIOLATES THE FCC'S RULES?

A. No, he stops short of that. Instead, he argues that Verizon's proposal is too costly, time-consuming and discriminatory for CLECs. (Nurse DT, at 53.)

Q. ARE MR. NURSE'S CRITICISMS JUSTIFIED?

A. No. Verizon's Amendment proposes several solutions for unbundled access to hybrid, IDLC-fed loops that are reasonable and completely consistent with the *TRO* requirements. (Verizon's Amendment 2, § 3.2.4.) By Mr. Nurse's own admission, the FCC rules allow ILECs to add new equipment to meet their unbundling obligations for these loops. Verizon's Amendment requires it to first move the loop to a spare working copper facility or a spare working UDLC facility where such facilities exist, just as BellSouth (which Mr. Nurse points to) does. (Verizon Amendment 2, § 3.2.4.). Verizon will propose loop construction to the CLEC only if neither a copper loop nor a loop served by a UDLC

system is available. In that case, the CLEC will be responsible for certain charges associated with the construction of that new loop facility, including an engineering query charge, an engineering work order non-recurring charge, and construction charges. (Verizon Amendment 2, § 3.2.4.2.)

Q. MR. NURSE CONTENDS THAT THERE IS NO REASON FOR VERIZON TO CONSTRUCT LOOP PLANT BECAUSE IT CAN ALWAYS USE "ENGINEERING SOLUTIONS." (NURSE DT, at 56.) IS HE RIGHT?

A. No. Mr. Nurse suggests that Verizon could just reconfigure existing systems in all cases to provide unbundled access to IDLC-fed loops at less expense to the CLEC. He mentions, in particular, "hairpinning" methods that he claims BellSouth uses. (Nurse DT, at 57.) There are several problems with Mr. Nurse's proposal.

First, nothing in the FCC's rules gives the CLEC the discretion to decide how Verizon will provide access to IDLC-fed loops. Under the *TRO*, "the *incumbent LECs* must present requesting carriers a technically feasible method of unbundled access," (*TRO*, ¶ 297 (emphasis added)), not the other way around. But AT&T's Amendment would allow AT&T to dictate the access method. Under its section 3.2.4, AT&T would have the right to force Verizon to provide an unbundled copper loop, "using Routine Network Modifications as necessary," without any mention of AT&T having to pay for any new loop construction or routine network

modifications that might be required to fill AT&T's order. Moreover, AT&T's Amendment would give it the right to insist on "UNE-P at TELRIC" if a spare copper facility or UDLC system was not available. Obviously, under the *TRRO*, AT&T has no right to new UNE-P arrangements.

Second, Mr. Nurse assumes, without any support, that building new loops or UDLC systems is uniformly cheaper than hairpinning solutions. In fact, Verizon's engineers prefer to meet unbundling obligations with new construction, rather than network reconfiguration, because it works out to be less expensive—especially considering that hairpinning is not currently supported by Verizon's ordering, provisioning, or maintenance systems. It makes no sense for Verizon to spend millions of dollars developing and conducting trials for hairpinning approaches that would likely be substantially more expensive than providing parallel copper or constructing a new loop.

Third, Mr. Nurse's focus on what BellSouth has purportedly offered to provide, even if true, is not relevant to the question of what is reasonable for Verizon to provide under Verizon's amendment. The Commission cannot simply accept Mr. Nurse's unsupported assumption that the two companies' networks are exactly alike and force Verizon to provide a hairpinning solution that may not be the best or most economical approach for Verizon.

Q. IN ADDITION TO THE OSS ISSUES SURROUNDING ORDERING, PROVISIONING, AND MAINTENANCE, ARE THERE ANY OTHER REASONS WHY HAIRPINNING IS NOT THE MOST EFFICIENT OR ECONOMICAL SOLUTION?

A. Yes. Hairpinning is an extremely inefficient use of capital resources. It requires double the amount of line side ports (DS0s) on the line side of the integrated digital line unit of a switch (see attached Ex. WR-1). Each ILEC DS0 has to be mapped to a corresponding CLEC DS0 within an individual integrated port. These CLEC DS0s would then have to be aggregated at the DS1 level and passed off to the CLEC, consuming another DS1 port on the integrated digital line unit.

This patchwork infrastructure not only consumes valuable switch resources, it also complicates the engineering and management of the switch. As hairpinning is only possible within an individual integrated digital line unit, engineers will have to estimate *and then monitor* not only the ILEC's service demands at any given remote terminal ("RT"), but also the service demands of one (*or more*) CLECs as the consumption of line side ports will be twice as great, compared to an ILEC-only RT. Administrative fill objectives, used by the engineers in capital resource management, will be all but impossible to control.

Q. IS IT "DISCRIMINATORY" FOR VERIZON TO CHARGE CLECS FOR LOOP CONSTRUCTION WHERE NECESARY TO ACCESS AN IDLC-FED LOOP?

A. No. It is not "discriminatory" for Verizon to recover, from the cost-causer, its costs of providing UNE access. In fact, the Act gives Verizon the right to do so. Mr. Nurse's argument that Verizon does not have to incur the same costs when it serves a customer at the same location does not prove any discrimination. As noted above, the FCC has determined that technical feasibility – not discrimination – is the reason why other options must be pursued in IDLC situations. In cases where the technically feasible options I described above are exhausted, AT&T would still have the option of offering service over Verizon's existing network structure, including integrated loop and switching, just as Verizon does, without having to pay for new construction. It can, for instance, opt for a resale arrangement, a commercially negotiated agreement, or it may build analogous facilities or lease them from an alternative network provider (*e.g.*, wireless or cable). But Verizon has no obligation to offer service utilizing AT&T's chosen network structure, or to pay for AT&T's network or provisioning choices.

Issue 18: *How should sub-loop access be provided under the TRO?*

Q. MR. NURSE COMPLAINS THAT VERIZON DOES NOT DEFINE SUBLOOPS. IS THAT TRUE?

A. No. Section 4.7.24 of Verizon's Amendment 2 includes a definition of "Sub-Loop for Multiunit Premises Access," which was the TRO's focus. To the extent the amendment that Mr. Nurse reviewed did not contain a definition for "Sub-Loop Distribution Facility," Verizon is willing to include

in the amendment an appropriate definition, which it has provided to CLECs in negotiations. That definition is as follows: "The copper portion of a Loop in Verizon's network that is between the minimum point of entry ("MPOE") at an end user customer premises and Verizon's feeder/distribution interface."

Second, Mr. Nurse is ignoring the underlying interconnection agreement, which also addresses subloops in the Network Elements Attachment , Section 6. The underlying agreement and the proposed amendment define subloops in a manner consistent with the FCC's Orders

Q. MR. NURSE COMPLAINS, IN PARTICULAR, THAT VERIZON'S AMENDMENT DOES NOT COMPLY WITH THE TRO'S REQUIREMENT TO PROVIDE ACCESS "AT OR NEAR" THE CUSTOMER'S PREMISES. (NURSE DT, AT 61.) IS HIS CRITICISM JUSTIFIED?

A. No. Verizon's language fully complies with the FCC's rules, and, in fact, includes the "at or near" language Mr. Nurse appears to find lacking. Verizon's Amendment defines a sub-loop to include "[a]ny portion of a Loop, other than an FTTP, that is technically feasible to access at a terminal in Verizon's outside plant *at or near a multiunit premises*." (Verizon Amendment 2, § 4.7.24 (emphasis added).)

Q. MR. NURSE COMMENTS THAT VERIZON HAS NOT YET SUBMITTED PROPOSED CHARGES FOR SUBLOOP AND SPOI-RELATED ACTIVITIES. IS THAT RIGHT?

A. Verizon has prices for subloops in its ICA Pricing Attachment, but, in some cases, it is not possible to quote specific prices for subloop activities because subloop access situations are often unique, so activities—and associated costs—may vary widely. Such variable costs include, for example, installation of supporting interconnection cabinets or blocks and running of interconnection cables. These are all individual construction jobs at customer premises, so each is different, depending on factors such as accessibility, climate, available equipment, distance from accessible terminal, etc.. Over time, if experience shows that these costs follow a pattern for which we can set fixed prices, Verizon will do so. In fact, Verizon prefers to have fixed prices, because they are easier to administer.

Q. HAS THIS COMMISSION AGREED THAT IT IS NOT FEASIBLE TO SET PRICES FOR SUBLOOPS ON A BLANKET BASIS?

A. Yes. In Verizon's UNE rate-setting case, the Commission ruled that "[d]ue to the customer-specific nature of providing access to subloop elements, prices for access to subloops shall be set on an individual case basis with this Commission arbitrating any disputes of technical feasibility, network reliability, and pricing in arbitration proceedings." (*Investigation into Pricing of Unbundled Network Elements*, Order No. PSC-02-1574-FOF-TP ("*Verizon UNE Case*"), at 37 (Nov. 15, 2002).

Nothing has changed since the Commission made this ruling, so there is no reason for the Commission to repudiate it.

Q. MR. NURSE COMPLAINS THAT VERIZON WILL NOT ALLOW AT&T TO ATTACH TO VERIZON EQUIPMENT OR DO ITS OWN INSTALLATION WORK. (NURSE DT, AT 63.) ARE THESE RESTRICTIONS REASONABLE?

A. Yes. Verizon is responsible and accountable for the integrity and security of its network, which serves both its retail and wholesale customers. Therefore, Verizon must have the ability to control access to its network and equipment. Given the number of people who depend on Verizon's network, and the critical importance of securing the telecommunications infrastructure, Verizon cannot risk any harm to that network through either inadvertent mistakes or deliberate sabotage. The language Mr. Nurse proposes presents just such a risk. It specifies that AT&T personnel may work "without the presence of Verizon technicians" and does not put any meaningful limits on the "connecting work" AT&T would be authorized to do without Verizon oversight. (*See* Nurse DT, at 63.) Mr. Nurse appears to believe that "nondiscriminatory access" to Verizon's network means that Verizon must give any and all CLECs the free run of its network, just as Verizon has. (Nurse DT, at 63.) That is a very dangerous standard that does not appear in any rule or law that I'm aware of. In fact, this Commission has already ruled, in the subloop context, that "CLECs should not be allowed access to Verizon's network where there are network security and reliability

concerns." (*Verizon UNE Case*, at 37.) These concerns are not just theoretical, as there have been incidents of unauthorized, unpaid-for use of Verizon facilities by CLECs; allowing only Verizon technicians to do the actual connections minimizes the chances of such incidents.

Issue 22: *How should the Amendment reflect an obligation that Verizon perform routine network modifications necessary to permit access to loops, dedicated transport, or dark fiber transport facilities where Verizon is required to provide unbundled access to those facilities under 47 U.S.C. § 251(c)(3) and 47 C.F.R. Part 51?*

Q. MR. NURSE STATES THAT "THE TRO REQUIRES ILECS TO MAKE ROUTINE NETWORK MODIFICATIONS" TO UNBUNDLE ALREADY EXISTING FACILITIES." (NURSE DT, AT 79.) DO YOU AGREE?

A. Yes, although Verizon does not agree with Mr. Nurse's contention that the FCC in the *TRO* was merely enforcing existing law. (Nurse DT, at 80). The Commission need not resolve that legal dispute, however, because AT&T has nevertheless agreed to include language addressing routing network modifications in the *TRO* Amendment. The parties' disagreement is really about pricing, not whether or not Verizon is required to do network modifications.

Q. SO VERIZON WILL DO ALL OF THE NETWORK MODIFICATIONS MR. NURSE POINTS TO IN HIS TESTIMONY? (NURSE DT, AT 80.)

A. Yes. Provided the CLEC signs a *TRO* Amendment to govern the terms

of Verizon's provisions of these items, Verizon will perform the routine network modifications Mr. Nurse references from the *TRO*, and will reflect that in the *TRO* Amendment.

Q. MR. NURSE CRITICIZES VERIZON'S LANGUAGE LIMITING VERIZON'S ROUTINE NETWORK MODIFICATIONS TO "IN-PLACE" CABLE AT "EXISTING SPLICE POINTS." (NURSE DT, AT 82.) IS THIS CRITICISM JUSTIFIED?

A. No. The limitation to in-place cables is appropriate, because the FCC explicitly "[did] ***not*** find...that incumbent LECs are required to trench or place new cables for a requesting carrier." (*TRO*, ¶ 635 (emphasis added.). Contrary to Mr. Nurse's suggestion, the FCC also did *not* require creation of a new splice point. Furthermore, due to lack of sufficient slack in existing cable, in many cases Verizon would have to place new cable to create a new splice point, and, as noted, Verizon is not required to place new cable. Creating new splice points in the network is, moreover, disruptive to the network and unnecessary.

Q. DOES MR. NURSE DISAGREE THAT VERIZON IS ENTITLED TO CHARGE FOR ROUTINE NETWORK MODFICATIONS?

A. No. Rather, he contends that Verizon is already charging CLECs for such modifications. (Nurse DT, at 83.)Mr. Nurse merely *assumes*, without any support, that existing rates recover the cost of routine network modifications, and suggests that the *TRO* forecloses separate charges for these activities. Mr. Nurse is wrong on the facts and the

law. The FCC explicitly states that "[t]he Commission's pricing rules provide incumbent LECs with the opportunity to recover the cost of the routine network modifications we require here" in the *TRO*. (*TRO*, ¶ 640). Although the FCC stated that network modification costs are sometimes reflected in recurring loop rates, (*id.*), this does not mean that they *are* recovered in *existing* loop rates in all cases, as Mr. Nurse seems to think. If the CLECs believe routine network modification costs are already in Verizon's loop rates, then they have to prove it. There is no presumption in the *TRO* or anywhere else that Verizon is already recovering its routine network modification costs, so Verizon need not rebut any such presumption, as the CLECs appear to believe.

Many of the network modifications required in the *TRO* had not been done when UNE rates were originally set. For instance, the *TRO* required expansive new requirements to *add* electronics to loops, whereas past modifications had focussed on *removing* equipment (like load coils and bridge taps) from the network. (*See TRO*, § 637.) If these activities were routinely done in the past, the FCC would not have had to specify in the *TRO* that they were required. In addition, even those activities that were done in the past may not have been done to the same extent that they will now be required to be done—for example, a line-and-station transfer for IDLC access was not needed before the advent of UNE loops (and this Commission has not established line-and-station transfer rates for Verizon at all, in any event). In short, it is obvious that a UNE cost study done years ago would not have captured

or even contemplated the network modifications required in the *TRO*.

As Mr. Ciamporcero explained in his testimony, Verizon is not proposing to litigate a cost study in this case because it is not feasible within the timeframe for the arbitration, but will initiate a proceeding later in which it will support its routine network modification rates. In the meantime, however, Verizon is *not* required to provide free service, so it should be permitted to charge the interim rates it has proposed, subject to true-up, if the CLECs wish to obtain items for which rates have not already been set.

Q. MR. NURSE CRITICIZES, IN PARTICULAR, A PURPORTED "$1000 RATE" FOR NETWORK MODIFICATIONS. IS THAT RATE EVEN IN VERIZON'S PRICING SCHEDULE?

A. No, this rate does not appear on the pricing schedule Verizon submitted with Amendment 2. I believe Mr. Nurse is referring to a past rate structure proposed in some negotiations, but that was modified later to break out individual rate elements. In any event, there is no $1000 rate at issue in this case.

Q. MR. NURSE MENTIONS THAT MAINE, VIRGINIA, AND NEW YORK HAVE RULED AGAINST VERIZON ON THE NETWORK MODIFICATIONS ISSUE. IS THAT ACCURATE?

A. No. The New York Commission never ruled that Verizon cannot recover for routine network modifications. Instead, because of unique

considerations in New York, Verizon agreed not to charge for new modifications, and chose not to litigate a cost study in the arbitration. Rather, Verizon reserved the right to pursue the charges at issue later, in a more appropriate forum. Verizon also made clear that it would track its "real time" costs and collect other data concerning the costs it incurs in connection with routine network modifications on a going-forward basis.

The Maine Commission specifically declined to make any decision regarding pricing of routine network modifications, but left existing rates in place until it could approve any additional rates in its ongoing wholesale tariff case or future cost proceeding. The Commission specifically allowed Verizon to amend its cost filings in the wholesale tariff case to propose additional rates for routine network modifications.

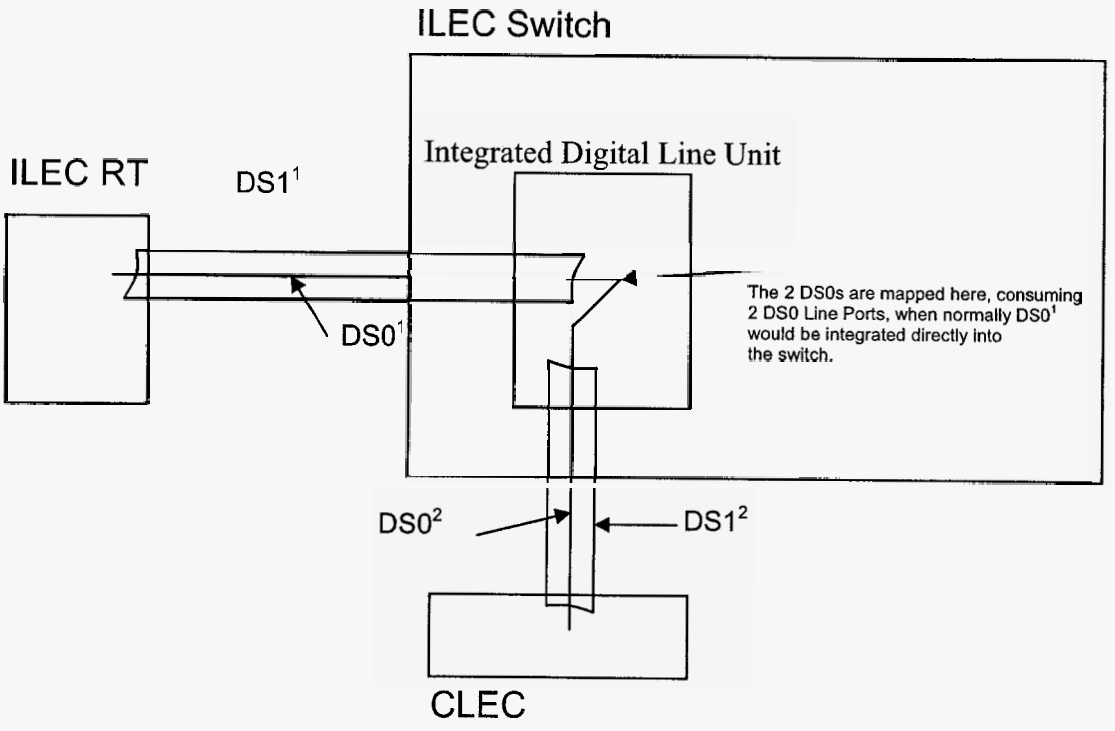
The Virginia Commission made no generic decision on recovery of routine network modification costs. Instead it denied recovery for certain modifications and further indicated that Verizon was free to file a new cost proceeding demonstrating network modification costs separate from recurring UNE costs. In any event, Verizon has appealed that erroneous decision to federal court.

Other state decisions are not, in any event, relevant to the language this Commission should approve for a *TRO* Amendment for Verizon Florida. Nothing in the Amendment should restrict Verizon's ability to recover

any network modifications costs it incurs because of CLEC unbundling requests.

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes.


ILEC Switch
Integrated Digital Line Unit
ILEC RT
DS1[1]
DS0[1]
The 2 DS0s are mapped here, consuming 2 DS0 Line Ports, when normally DS0[1] would be integrated directly into the switch.
DS0[2]
DS1[2]
CLEC