BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 990649B-TP

In the Matter of

INVESTIGATION INTO PRICING
OF UNBUNDLED NETWORK
ELEMENTS (SPRINT/VERIZON TRACK)
_____/

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VOLUME 1

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PROCEEDINGS:	HEARING
BEFORE:	CHAIRMAN LILA A. JABER COMMISSIONER J. TERRY DEASON COMMISSIONER BRAULIO L. BAEZ COMMISSIONER MICHAEL A. PALECKI COMMISSIONER RUDOLPH "RUDY" BRADLEY
DATE:	Monday, April 29, 2002
TIME:	Commenced at 9:35 a.m.
PLACE:	Betty Easley Conference Center Room 148 4075 Esplanade Way Tallahassee, Florida
REPORTED BY:	LINDA BOLES, RPR Official FPSC Reporter (850) 413-6734

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JOHN P. FONS, Ausley & McMullen, P. O. Box 391, Tallahassee, Florida, and SUSAN MASTERTON, P. O. Box 2214, Tallahassee, Florida 32316, appearing on behalf of Sprint-Florida, Inc.

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MATTHEW FEIL, 390 North Orange Avenue, Suite 2000, Orlando, Florida 32801, appearing on behalf of Florida Digital Network, Inc.

APPEARANCES CONTINUED

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VICKI GORDON KAUFMAN, McWhirter, Reeves, McGlothlin, Davidson, Decker, Kaufman, Arnold and Steen, P.A, 117 South Gadsden Street, Tallahassee, Florida 32301, and WILLIAM H. WEBER, Covad Communications, 19th Floor, Promenade 2, 1230 Peachtree Street NE, Atlanta, Georgia 30309, appearing on behalf of Covad.

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PROCEEDING

CHAIRMAN JABER: Good morning. Let's go ahead and get started. Staff, read the notice.

MR. FUDGE: Pursuant to a notice issued April 8th, 2002, this time and place has been set for a hearing in Docket 990649B-TP, In Re: Investigation into Pricing of Unbundled Network Elements for Sprint/Verizon.

CHAIRMAN JABER: Thank you, Mr. Fudge.

Let's take appearances. Ms. Caswell?

MS. CASWELL: Kim Caswell with Verizon Florida. And I have with me today Christopher Huther and Megan Troy of Preston, Gates, Ellis and Rouvelas Meeds.

MR. FONS: Good morning. My name is John Fons. I'm with the Ausley Law Firm and I'm representing Sprint-Florida, Incorporated. Also appearing with me is Susan Masterton.

MR. SELF: I'm Floyd Self of the Messer, Caparello & Self Law Firm, appearing on behalf of AT&T as well as KMC Telecom.

MR. HATCH: Tracy Hatch of the Messer, Caparello & Self Law Firm, appearing on behalf of AT&T Communications of the Southern States, LLC.

MS. McNULTY: Donna McNulty, and with me today is Ken Woods, and we're appearing on behalf of WorldCom, Inc.

MR. FEIL: Matthew Feil on behalf of Florida Digital Network, Inc.

MR. McGLOTHLIN: Joe McGlothlin of the McWhirter, Reeves Law Firm for Z-Tel Communications, Inc. I'd like to make an appearance for Tim Perry of our firm.

MS. KAUFMAN: Vicki Gordon Kaufman of the McWhirter, Reeves Law Firm on behalf of Covad Communications, and William H. Weber, Senior Counsel to Covad.

MR. FUDGE: Jason Fudge and Adam Teitzman on behalf of the Commission.

CHAIRMAN JABER: Mr. McGlothlin, you made an appearance for who?

MR. McGLOTHLIN: Tim Perry, P-E-R-R-Y.

CHAIRMAN JABER: Thank you. And, Commissioners, just so you know, I've excused Mr. Gross from the hearing this morning.

Okay. Mr. Fudge, preliminary matters.

MR. FUDGE: Yes, Commissioners. We still have several outstanding requests for confidentiality filed by Verizon. It's my understanding that they will be filing updated line-by-line justifications for those requests, and there are some pending claims for confidentiality by AT&T, WorldCom and Sprint.

CHAIRMAN JABER: All right. And I'm looking here at the list you've given us. Parties have waived opening statements. And it looks like we should address some of the Sprint matters first.

MR. FUDGE: Yes, Commissioner.

CHAIRMAN JABER: Okay. How would you recommend we go forward; go ahead and identify the testimony, Mr. Fons, and admit that into the record and also admit the exhibits into the record?

MR. FONS: That's what we would like to do.

CHAIRMAN JABER: Okay. Now will that resolve the entire proceeding for Sprint? Will you be asking to be excused after that or will you --

MR. FONS: It will depend, and it will depend upon what happens with regard to a stipulation that's currently circulating among the parties in the Verizon case with regard to the banding of the rates. It's our understanding that that proposal, if accepted by all the parties in the Verizon proceeding, will introduce a second methodology for banding which is different from the methodology which was ordered by the Commission in the BellSouth proceeding. And Sprint has not had an opportunity to review it entirely, but Sprint would like the opportunity to be able to pick and choose.

Currently we have chosen the BellSouth banding proposal, which was a modification of the Sprint earlier proposal, and we would like to be able to address that, if that issue comes up.

CHAIRMAN JABER: Okay. Great. How would you recommend we go forward? Do you want to let Mr. Fons identify

his witnesses?

MR. FUDGE: Yes, Commissioner.

CHAIRMAN JABER: Okay. Go ahead, Mr. Fons.

MR. FONS: The parties have stipulated to the introduction of the testimony of the Sprint witnesses and there will be no cross-examination of these witnesses.

The first testimony will be the testimony, the stipulated direct testimony of Michael R. Hunsucker consisting of 36 pages, his supplemental direct testimony consisting of six pages and his surrebuttal testimony consisting of five pages. We would ask that that testimony be inserted in the record as though read.

CHAIRMAN JABER: Yes. Let the record reflect that the direct testimony, the surrebuttal testimony and the supplemental direct testimony of Michael R. Hunsucker shall be inserted into the record as though read.

MR. FONS: Mr. Hunsucker had five exhibits -- I'm sorry, four exhibits. Exhibits MRH-1 and MRH-2 have been withdrawn. They were associated with his direct testimony. Attached to his supplemental direct testimony was revised MRH-1 and revised MRH-2. Attached to his direct testimony was MRH-3 and MRH-4. And we would ask that those exhibits be marked for identification purposes. We can do it as a composite or any way you would like to do it.

CHAIRMAN JABER: Okay. Let the record reflect that

Composite Exhibit 1 shall be made of MRH-1, revised MRH-1, revised MRH-2, MRH-3, MRH-4, and Composite Exhibit 1 is admitted into the record.

(Composite Exhibit 1 marked for identification and admitted into the record.)

SPRINT
DOCKET NO. 990649-TP
FILED NOVEMBER 7, 2001

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DIRECT TESTIMONY

OF

MICHAEL R. HUNSUCKER

Q. Please state your name and business address.

A. My name is Michael R. Hunsucker. I am Director-Regulatory Policy, for Sprint-United Management Company. My business address is 6360 Sprint Parkway, Overland Park, Kansas 66251.

Q. Please describe your educational background and work experience.

A. I received a Bachelor of Arts degree in Economics and Business Administration from King College in 1979.

I began my career with Sprint in 1979 as a Staff Forecaster for Sprint/United Telephone in Bristol, Tennessee, and was responsible for the preparation and analysis of access line and minute of use forecasts. While at Southeast Group, I held various positions through 1985 primarily responsible for the preparation and analysis of financial operations budgets, capital budgets and Part 69 cost allocation studies. In 1985, I assumed the position of Manager - Cost Allocation Procedures for Sprint

United Management Company and was responsible for the preparation and analysis of Part 69 allocations including systems support to the 17 states in which Sprint/United operated. In 1987, I transferred back to Sprint/United Telephone and assumed the position of Separations Supervisor with responsibilities to direct all activities associated with the jurisdictional allocations of costs as prescribed by the FCC under Parts 36 and 69. In 1988 and 1991, respectively, I assumed the positions of Manager - Access and Toll Services and General Manager - Access Services and Jurisdictional Costs responsible for directing all regulatory activities associated with interstate and intrastate access and toll services and the development of Part 36/69 cost studies including the provision of expert testimony as required.

In my current position as Director - Regulatory Policy for Sprint/United Management Company, I am responsible for developing state and federal regulatory policy and legislative policy for Sprint's Local Telecommunications Division. Additionally, I am responsible for the coordination of regulatory/ legislative policies with other Sprint business units.

Q. Have you previously testified before state Public Service Commissions?

A. Yes. I have previously testified before state regulatory commissions in South Carolina, Florida, Illinois, Pennsylvania, Nebraska, North Carolina, Georgia, and Maryland.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to address on behalf of Sprint-Florida, Inc. ("Sprint") Issues 1, 2, 4, 5, 6, 9, 12, and 13 of the Tentative List of Issues, as set forth in Order No. PSC-01-1592-PC0-TP, issued August 2, 2001.

Q. Which portions of Sprint's cost study filings are you supporting?

A. In addition to my testimony, Exhibit KWD-3 to the testimony of Sprint witness Kent Dickerson identifies the portions of Sprint's cost study filings that I support.

Issue 1: What factors should the Commission consider in establishing rates and charges for UNEs (including deaveraged UNEs and UNE combinations)?

Q. What is the appropriate basis for the pricing of unbundled network elements?

A. Unbundled network element (UNE) rates should be based on forward-looking economic costs. This is not only the economically appropriate basis for the pricing of UNEs, it is required by Section 252 (d)(1) of the Telecom Act of 1996 and the FCC rules implementing that section of the Act. Where economic costs vary significantly, prices should be deaveraged consistent with FCC Rule 51.505(f).

Q. What are the requirements of Section 252(d)(1) of the Telecom Act of 1996?

A. Section 252(d)(1) sets forth the pricing standards for Interconnection and Unbundled Network Elements. Specifically, it requires that rates for these elements

(A) shall be-

(i) based on the cost (determined without reference to a rate-of-return or other rate-based proceeding) of providing the interconnection or network element (whichever is applicable), and

(ii) nondiscriminatory, and

(B) may include a reasonable profit.

Q. What rules did the FCC adopt implementing that section of the Act?

A. In its August 8, 1996 First Report and Order in Docket 96-98, the FCC concluded that the Act requires that prices for UNEs be set at forward-

looking economic costs. Specifically, the FCC adopted a version of total service long run incremental costs (TSLRIC) as the methodology to be used in determining the costs of UNEs. The FCC refers to its methodology as Total Element Long Run Incremental Costs (TELRIC) – a nomenclature that reflects that the methodology is applied to the costing of discrete network elements or facilities, rather than the cost of a service or services provided over that facility.

The FCC's TELRIC methodology is set forth in Part 51.505(b) of its Rules:

"Total element long-run incremental cost. The total element long-run incremental cost of an element is the forward-looking cost over the long run of the total quantity of the facilities and functions that are directly attributable to, or reasonably identifiable as incremental to, such element, calculated taking as given the incumbent LEC's provision of other elements.

(1) Efficient network configuration. The total element long-run incremental cost of an element should be measured based on the use of the most efficient telecommunications technology currently available and the lowest cost network configuration, given the existing location of the incumbent LEC's wire centers.

(2) Forward-looking cost of capital. The forward-looking cost of capital shall be used in calculating the total element long-run incremental cost of an element.

(3) Depreciation rates. The depreciation rates used in calculating forward-looking economic costs of elements shall be economic depreciation rates."

Q. Are there costs, other than the TELRIC costs, described above that should be included in the forward-looking economic costs of unbundled network elements?

A. Yes. The FCC's currently effective Rules (Part 51.505 (a)) define the forward-looking economic cost of an unbundled network element to be the sum of TELRIC costs plus "...a reasonable allocation of forward-looking common costs...." As such, Sprint has developed and applied a common cost factor of 12.03% to its unbundled network element costs. Mr. Dickerson describes how this common cost factor was developed.

Q. Why are forward-looking economic costs the economically appropriate basis for pricing unbundled network elements?

A. A fundamental objective of the Telecom Act of 1996 is to open all telecommunications markets to competition. Congress recognized that there are substantial barriers to entry into the local exchange market. In particular, the local exchange network is highly capital intensive. Facility-based entrants are confronted by the formidable hurdle of having to devote substantial capital resources, over an extended period of time, to

construct a local network prior to winning any customers or generating any revenues.

Section 251 of the Act provides new entrants alternative avenues for entering the local exchange market. First, new entrants can simply resell the services of the incumbent. In other words, they can win customers and gain market share without having to construct any of their own network facilities. Second, new entrants can obtain unbundled network elements from the incumbent. This not only provides new entrants more flexibility in creating services (e.g., the ability to provide expanded local calling areas), but also provides a critical pricing signal for a new entrant's "make or buy" decision in acquiring network facilities. Simply put, new entrants will be incented to build facilities where they can do so at lower costs than they would pay the incumbent for the equivalent network element or elements, and to buy unbundled elements where the incumbent's prices for those elements are lower than the new entrant's cost of constructing those facilities.

The forward-looking cost standard for unbundled network elements provides a measure of the costs that would be incurred by an efficient supplier to provide a particular network element. Correspondingly, it will provide the appropriate marketplace signals to competitors, creating an incentive for them to construct their own facilities when they can do it more efficiently than the incumbent LEC, and discouraging uneconomic

investment where they cannot provide the facilities at a lower cost than the incumbent.

Conversely, to the extent that unbundled network element prices deviate from economically efficient levels, such prices will distort infrastructure investment decisions of the new entrants. If network elements are priced above economic costs, it will provide an incentive for competitors to deploy their own facilities, even though in actuality the incumbent can provide those facilities at lower prices. On the other hand, if network elements are priced below economic costs, it will discourage competitors from deploying facilities even though they could do so at a cost that is lower than the incumbent's economic costs.

Q. What is the appropriate basis for pricing non-recurring charges for unbundled network elements?

A. Non-recurring charges should also be based on forward-looking costs. In the first instance, the Act requires unbundled network elements to be based on costs. Logically, the same cost standard that applies to the recurring costs of those elements should also apply to the non-recurring costs associated with provisioning those elements. Moreover, non-recurring costs, as well as recurring costs, enter into competitors' decisions to construct their own facilities or to buy unbundled elements from the incumbent LEC. As discussed above, the incumbent LEC's

prices should be based on economic costs in order to provide the appropriate pricing signals for competitors in their "make or buy" decisions. The benefits of setting the recurring charge for unbundled network elements at forward-looking economic costs would be diminished or lost if non-recurring charges associated with those elements were not similarly based on forward-looking economic costs.

Q. How should the forward-looking economic costs for non-recurring charges be determined?

A. The forward-looking costs for non-recurring charges should reflect the costs that would be incurred in performing those functions in relation to the forward-looking network that is the basis for calculating the recurring costs and rates for the unbundled network element. Just as the recurring costs for an efficiently designed network based on current technology can differ from the embedded costs of the existing network, so can the non-recurring costs associated with provisioning elements in that forward-looking network differ from the non-recurring costs associated with provisioning elements in the existing network.

Q. What is the relationship between the pricing requirements of the Telecom Act and rate deaveraging for unbundled network elements?

A. As discussed above, the Telecom Act requires that the prices for unbundled network elements be cost-based, and the FCC Rules define cost-based to mean forward-looking economic costs (TELRIC plus a reasonable share of forward-looking common costs). However, the forward-looking costs of providing an element are not necessarily uniform throughout an incumbent LEC's service territory. For example, Sprint's unbundled 2-wire loop costs, including an allocation of common costs, range from a low of $11.78 a month to a high of $306.78 a month, while the statewide average cost in Sprint-Florida's serving area is $30.00. Although that average cost does, indeed, reflect TELRIC costs, it does not follow that pricing all unbundled loops in Sprint-Florida's serving area at the company-wide average forward-looking cost would meet the requirements of the Act. To do so would result in unbundled loops in the lowest cost areas being priced over 2.5 times their actual forward-looking costs, while unbundled loops in the highest cost area would be priced at approximately one-tenth of their forward-looking cost. Clearly, prices that deviate from costs by that magnitude do not meet the Act's requirement for cost-based rates, nor do they provide the correct marketplace signals to competitors in their decision to build their own facilities or buy unbundled network elements from the incumbent. Thus, deaveraging of unbundled network elements is necessary to avoid the pricing distortions inherent in rate averaging.

Q. What do the FCC's rules require in terms of rate deaveraging?

A. In Section 51.507(f) of its Rules, the FCC requires that unbundled network elements be geographically deaveraged into at least three cost-related zones. These can be either the zones established for the deaveraging of interstate transport rates, or zones determined by the state commission. I will discuss Sprint's proposal for geographically deaveraging UNE prices later in my testimony.

Q. What factors should the Commission consider in establishing rates for UNE combinations?

A. As discussed above, the governing FCC rules require UNE rates to be based on forward-looking economic costs. That same criteria is applicable to combinations of unbundled network elements. As a general principle, the rate for a UNE combination should be the sum of the rates for those UNE elements that comprise that combination. However, there are occasions where simply summing those individual UNE costs is inappropriate. For example, the local switching UNE includes the cost of a line card. In the case of unbundled loops provided using a Digital Loop Carrier (DLC), two voice-grade line cards are included in the cost of the unbundled loop: one at the DLC-remote terminal and one at the DLC-central office terminal. When loop and switching are provided in combination, only the voice-grade line card at the DLC-remote terminal is

required. If the UNE combination of loop and switching were priced at the sum of the individual UNEs, CLECs would be effectively paying for three line cards, although only one voice-grade line card would be used in provisioning that combination. Therefore, the appropriate price for that UNE combination would be the sum of the loop and switching UNE rates, less the costs of two line cards. The purpose of this adjustment, and any deviations from the general principle that UNE combinations be priced at the sum of the individual UNEs included in that combination, is to accurately reflect the actual forward-looking costs of that UNE combination.

Q. Are there other factors the Commission should take into consideration in establishing rates for UNEs (including deaveraged UNEs and UNE combinations)? For example, incumbent LECs' retail rates are not typically cost-based, nor are they deaveraged to any great degree. Should that be factored into a determination of the rates for unbundled network elements, including deaveraged rates and rates for UNE combinations?

A. No. Although Sprint fully appreciates the differences between existing retail rate structures and levels and the rate levels and structures for unbundled network elements, how these differences should be resolved is equally clear to Sprint. Consistent with the mandate of the Telecom Act of 1996, unbundled network elements should be priced at forward-looking

economic costs. To the extent that retail rate levels or rate structures are inconsistent with unbundled network element prices, those retail rates should be restructured to bring them into consistency with unbundled network prices. Alternatively stated, the answer lies in moving retail rates toward economic cost levels, and not in introducing distortions in the pricing of unbundled network elements to bring them into conformance with the uneconomic pricing of incumbent LEC retail services.

Q. What impact has the Commission decision in the BellSouth pricing docket had on prices Sprint is proposing in this filing?

A. Sprint has conducted a review of the Commission Orders in the BellSouth docket issued on May 25th, 2001, and October 18th 2001. Based on this review, Sprint has attempted to incorporate what it believes to be the Commission's decisions into this filing (e.g. modified Sprint banding methodology).

Q. Why is the Commission's decision in the BellSouth proceeding (Phase II) important to Sprint?

A. Because Sprint operates as both a CLEC and an ILEC in Florida, Sprint is concerned about the state-wide, industry-wide application of Commission decisions. First, Sprint's ILEC must be treated in the same fashion as the other ILECs in Florida with regard to cost methodologies, cost input

requirements and pricing principles. Second, Sprint's CLEC must be able to purchase unbundled network elements from ILECs in the state that are developed/established on a similar basis as Sprint's ILEC is required to provide to CLECs in the state. This is necessary to ensure that Sprint Corporation – an ILEC and a CLEC – is not disadvantaged in the state.

Issue 2(a): What is the appropriate methodology to deaverage UNEs and what is the appropriate rate structure for deaveraged UNEs?

Q. What general principles should the Commission apply in determining the degree to which rates for unbundled elements are deaveraged?

A. As a general principle, and as noted earlier in my testimony, rates should be deaveraged to the degree necessary to achieve a result wherein the averaged rate does not deviate significantly from the actual forward-looking cost of providing that element anywhere within the defined zone. While it is impossible to quantify with absolute precision what "significant" deviations of rates from costs are, Sprint generally believes that differences between rates and costs in excess of 20% would be of sufficient magnitude to potentially distort competitors' investment decisions. Using that criteria, Sprint believes that an incumbent LEC should be required to construct a deaveraged rate schedule such that the

average rate in each zone is no more than 20% higher or 20% lower than the forward-looking cost of providing that element.

Q. What specific criteria should underlay this Commission's requirements for incumbent LECs to deaverage their unbundled network elements?

A. Sprint would advocate the following criteria:

First, as discussed previously, prices for unbundled network elements should be deaveraged to the degree necessary to avoid significant deviations between the rate that is charged for an unbundled network element and the actual forward-looking costs of providing that element in a specific geographic area. This means that the degree of deaveraging can vary both across elements and among incumbent LECs. For example, the costs of providing some unbundled network elements in different geographic areas simply do not vary significantly. There is little or no economic benefit, therefore, in deaveraging the rates for those elements. On the other hand, the forward-looking economic costs of other elements can vary significantly, as evidenced by the example for unbundled loops discussed previously. Clearly, those rates should be deaveraged into a sufficient number of zones, such that the rate for each zone does not significantly deviate from the actual forward-looking costs of providing that element for any area included in that zone. As such, the number of zones

appropriate for the deaveraging of one element is not necessarily the appropriate number of zones for some other element, where the disparity in costs across geographic areas might be substantially more or less.

Second, the degree of rate deaveraging should be based on both administrative considerations and a realistic assessment of the extent to which limited rate averaging would not materially, adversely impact competition and investment decisions. At the extreme, for example, unbundled loop costs differ almost on a customer-by-customer basis. Customer or location-specific unbundled loop rates may meet the theoretical ideal of cost-based rates, but they would equally be an administrative nightmare, for both Sprint as well as its competitors ordering unbundled loops. Furthermore, that degree of deaveraging is not necessary to provide economically correct pricing signals to new entrants. Typically, a competitor enters the local market with the intention of serving all or a substantial segment of that market, and not just one or two customers.

Some degree of averaging of unbundled element rates does not necessarily distort competitors' investment decisions for several reasons. First, the deviations, both positive and negative, between the averaged rate and the actual forward-looking costs will to some extent be offsetting. Second, and most important, if rates are deaveraged such that there are

not significant differences between the average rate and the actual forward-looking costs, the impact of that rate averaging will, by definition, be minimal and is unlikely to have a material impact on a competitor's investment decisions.

Third, Sprint proposes that forward-looking costs be deaveraged on a wire center basis. Using the wire center as the unit of cost analysis is reasonable for a number of reasons. The wire center generally conforms to the market definitions and plans of new entrants, and therefore, as previously discussed, averaging costs at this level is not likely to distort their entry or marketing decisions. Moreover, deaveraging costs below the wire center level entails not only more complex cost modeling, but would impose significant additional costs on both incumbent LECs and competitors in administering such a rate structure.

Fourth, incumbent LECs should be required to group wire centers into zones, and develop rates based on the weighted average cost of the UNE for all wire centers within each zone, subject to the constraint that the average rate for a UNE zone should not deviate by more than 20% from the wire center forward-looking cost of that UNE for any wire center included in that zone. However, it would not be unreasonable to permit a wider range of deviation in the lowest and highest cost zones, recognizing the larger cost variances in the lowest and highest cost areas and the undesirability of creating an excessive number of zones.

Sprint's proposed deaveraging methodology is intended to provide a balance between cost-based rates and administrative ease — both for incumbent LECs and new entrants.

Q. What level of deaveraging did this Commission require of BellSouth in this proceeding?

A. The Commission adopted a modified Sprint proposal that resulted in three bands and placed approximately 61%, 34% and 5% of the access lines into each of the three bands. Therefore, Sprint has collapsed the number of bands produced by its methodology to produce a similar distribution of access lines.

Issue 2(b): For which of the following UNEs should the Commission set deaveraged rates?

(1) loops (all)

(2) local switching

(3) Interoffice transport (dedicated and shared)

(4) other (including combinations)

Q. What unbundled network elements should be deaveraged?

A. As was stated in Sprint's Post Hearing Brief in Phase II of this docket, filed on November 21, 2000, the forward-looking economic costs for unbundled loops, subloops, local ports and local switching usage, common and dedicated transport, and dark fiber all vary significantly by geographic area. However, Sprint, as indicated in its Brief, requests that only the recurring rates for loops and related combinations be deaveraged.

Despite Sprint's evidence demonstrating that the recurring costs for unbundled loops, subloops, local ports and local switching usage, common and dedicated transport, and dark fiber all vary significantly by geographic area, it has become increasingly evident that the industry, including the CLECs, have expressed no interest in wanting deaveraged switching and transport.

Sprint does not believe there are such cost differences in the nonrecurring elements to warrant deaveraged prices. Therefore, Sprint does not recommend that non-recurring charges be deaveraged.

Q. What did this Commission order in the BellSouth proceeding relative to this issue?

A. The Commission ordered BellSouth only to deaverage the recurring costs/prices of all varieties of loops below DS3, sub-loops, and combinations containing such loops.

Q. What has Sprint proposed to deaverage in this filing?

A. Consistent with the interests of CLECs and consistent with what the Commission ordered in the BellSouth proceeding, Sprint is proposing to deaverage the recurring costs of loops below DS3, sub-loops and combinations containing such loops. The deaveraged prices for those elements are set forth in MRH Exhibit 1.

Issue 4 (a): Which subloop elements, if any, should be unbundled in this proceeding, and how should prices be set?

(b): How should access to subloop elements be provided, and how should prices be set?

Q. How does the FCC define the subloop unbundled network element?

A. In Section 51.319(a)(2) of its rules, the FCC defines the subloop network element "...as any portion of the loop that is technically feasible to access at terminals in the incumbent LEC's outside plant, including inside wire. An accessible terminal is any point on the loop where technicians can access the wire or fiber within the cable without removing a splice case to reach the wire or fiber within. Such points may include, but are not limited to, the pole or pedestal, the network interface device, the minimum point

of entry, the single point of interconnection, the main distribution frame, the remote terminal, and the feeder/distribution interface".

Because subloops are, for the most part, a newly defined network element, it is impossible to determine precisely what subloop elements CLECs will seek to obtain. It would, therefore, be a difficult - if not an impossible - task to identify and develop prices for every conceivable subloop element, nor is it a useful exercise to do so in the absence of demonstrated demand for those elements. To date, Sprint has not been requested to provide subloop elements to any CLEC in Florida.

In any event, Sprint believes that, if there is any demand, the preponderance of demand for subloop elements will be for feeder or distribution plant. Therefore, Sprint has developed costs and proposed rates for these two components of the loop. To the extent that a CLEC requires different subloop elements, and it is technically feasible to provision such elements, Sprint will determine the rates for those subloop elements on an individual case basis, utilizing the TELRIC costing standard. If future experience demonstrates widespread demand for subloop elements in addition to feeder and distribution, Sprint will develop (and incumbent LECs generally should be required to develop) generic rates for such subloop elements.

Rates for subloop elements should be based on the same costing and pricing principles as all other loop-related UNEs: that is, subloop elements should be based on TELRIC, and should be deaveraged to the extent they exhibit significant geographical differences.

Q. How should access to such subloops be provided, and how should they be priced?

A. As discussed in Mr. Dickerson's testimony, the lack of experience and standardized practices for interconnection with subloops renders it infeasible at this time for Sprint to develop a generic forward-looking cost for subloop interconnection. Therefore, Sprint proposes to price this interconnection on an individual case basis. As Sprint gains experience, and when industry standards and practices are developed, Sprint anticipates it should be feasible to establish generic rates for subloop interconnection.

Issue 5: For which signaling networks and call-related databases should rates be set?

Q. For which signaling networks and call-related databases should rates be set?

A. As discussed in Mr. Talken's testimony, Sprint proposes UNE rates for the following call-related database items:

- 911/E911
- STP Ports and STP Switching (SS7 Interconnection)
- Database Query Services

Issue 6: Under what circumstances, if any, is it appropriate to recover non-recurring costs through recurring rates?

Q. Do the FCC rules allow for the recovery of non-recurring costs through recurring rates?

A. Yes. Although the general principle is that recurring costs should be recovered by recurring rates, Section 51.507(e) of the FCC Rules permits deviations from that general principle:

"(e) State commissions may, where reasonable, require incumbent LECs to recover nonrecurring costs through recurring charges over a reasonable period of time. Nonrecurring charges shall be allocated efficiently among requesting telecommunications carriers, and shall not permit an incumbent LEC to recover more than the total forward-looking economic cost of providing the applicable element."

Q. Under what circumstances would it be appropriate to recover non-recurring costs through recurring rates?

A. To the extent that high non-recurring charges are a significant barrier to competitive entry, it may be appropriate to require at least a portion of those non-recurring charges be recovered through recurring rates.

Absent such compelling circumstances, Sprint believes that non-recurring costs should be recovered through non-recurring rates. Requiring non-recurring costs to be recovered through recurring charges raises a number of difficult policy and administrative issues. On the one hand, the incumbent LEC would be financially exposed if the CLEC discontinues service before the non-recurring costs are fully recovered. On the other hand, the incumbent LEC could over-recover its non-recurring costs unless it tracked each service installation and reduced its recurring rate at the point where the non-recurring costs built into that recurring rate were fully recovered.

Q. Does Sprint propose in this filing to recover any non-recurring costs through recurring rates?

A. No.

ISSUE 9(a): What are the appropriate recurring rates (averaged or deaveraged as the case may be) and non-recurring charges for each of the following UNEs?

(1) 2-wire voice grade loop;

(2) 4-wire voice grade loop;

(3) 2-wire ISDN / IDSL loop;

(4) 2-wire xDSL-capable loop;

(5) 4-wire xDSL-capable loop;

(6) 4-wire 56 kbps loop;

(7) 4-wire 64 kbps loop;

(8) DS-1 loop;

(9) high capacity loops (DS3 and above);

(10) dark fiber loop;

(11) subloop elements (to the extent required by the Commission In Issue 4);

(12) network interface devices;

(13) circuit switching (where required);

(14) packet switching (where required);

(15) shared interofffice transmission;

(16) dedicated interoffice transmision;

(17) dark fiber interoffice facilities;

(18) signaling networks and call-related databases;

Q. What are Sprint's proposed UNE rates?

A. Sprint's proposed UNE rates are summarized in MRH Exhibit 1, "Network Element Price List-Sprint Florida". The proposed UNE rates were derived from the cost studies presented by the Sprint cost witnesses in this proceeding. The proposed rates are calculated as the sum of TELRIC costs plus allocated common costs.

Q. Please describe how you developed the deaveraged rate bands in MRH Exhibit 1.

A. The deaveraged rate bands were developed pursuant to Sprint's proposed criteria for deaveraging, as discussed previously. First, wire center specific costs were developed for each element to be deaveraged. Second, the wire centers were then grouped or banded such that the actual cost of each wire center in the band does not deviate from the proposed rate in the band by more than 20%. Finally, rate bands were combined such that the distribution of lines in each band was consistent with the distribution mandated by this Commission for BellSouth.

The derivation of the proposed bands are provided in MRH Exhibit 2. In this exhibit I provide a summary of the number and percentage of access lines in each band, as well as the proposed rate for each band. This exhibit also separately lists every wire center in each of the bands, as well as the percent deviation between the wire center specific costs and the proposed rate for the band into which that wire center falls.

Q. What is Sprint's proposed deaveraged rate structure for unbundled loops?

A. Sprint's proposed deaveraged rate structure for unbundled loops is provided in MRH Exhibit 2. The proposed rate bands were developed consistent with the deaveraging criteria described previously. Strictly applying the 20% deviation rule resulted in 9 bands as shown in MRH Exhibit 3. However, consistent with what the Commission mandated in the Phase II proceeding (BellSouth), Sprint aggregated wire centers in the high cost and low cost bands such that the distribution of lines in each band was consistent with the distribution required for BellSouth.

MRH Exhibit 2 contains the proposed rates for analog 2-wire loops. The same 3 bands were also used for analog 4-wire, 2-wire ISDN, DS-0 digital data, and DS1 loops to be consistent with what Sprint believes the Commission established for all loop-related elements consistent with the rate bands established for 2-wire analog loops. The banded rates for these loops are provided in MRH Exhibit 1.

Q. What is Sprint's proposed deaveraged rate structure for subloops?

A. As discussed in my testimony regarding Issue 4, Sprint has developed generic rates for the feeder and distribution subloop elements. Sprint's proposed deaveraged rates for feeder and distribution are provided in MRH Exhibit 1.

Again, in accordance with Sprint's understanding of what the Commission ordered in the Phase II proceeding, Sprint utilized the same rate bands for the feeder sub-element as the 2-wire analog loop resulting in 3 rate bands.

The same 3 rate bands were used also for the 4-wire feeder and distribution subloop elements. The rates for these two elements were calculated by adding to the respective 2-wire feeder and distribution rate a uniform amount equal to the additional costs of provisioning these types of loops. The banded rates for the 4-wire feeder and distribution subloop elements are also provided in MRH Exhibit 1.

Q. Is Sprint's banding proposal consistent with the banding the Commission ordered in the Phase II (BellSouth) proceeding?

A. Yes, it is. Sprint understands that the Commission adopted Sprint's +/- 20% banding proposal in the Phase II proceeding. This produced a total of 5 bands for BellSouth's unbundled loops. Furthermore, the Commission ultimately agreed to collapse the 5 bands into 3, expressing concerns about competitive impact and high rates in the higher cost band.

Likewise, Sprint's +/- 20% would produce 9 bands for Sprint. Employing similar rationale and mechanics, Sprint is proposing to collapse its 9 bands into 3 bands such that the distribution of lines in each band is consistent with the Commission-ordered BellSouth bands.

Q. What is Sprint's proposed rate structure for local switching?

A. Local switching is comprised of two distinct elements: usage and ports. The switch port element includes the fixed or per line cost associated with the provision of local switching, and therefore Sprint proposes that the port charge be assessed on a per line basis. The usage component includes costs that are usage sensitive, and therefore Sprint proposes that these costs be recovered through a per minute of use charge.

The cost of a switch port for a PBX trunk is significantly more than the cost of a switch port for a basic access line interconnection. Therefore, separate switch port rates were developed for each of these service types.

Sprint's proposed local switching rates are provided in MRH Exhibit 1.

Q. Please describe Sprint's metholodogy for pricing switch usage.

A. The cost of switching a telephone call consists of two distinct cost components. One is incurred on a per message basis, the other on a per minute basis. The per message cost, also known as call set-up cost, consists primarily of the amount of time the switch's central processor requires to set-up the call. Understanding that the length of all calls vary significantly, Sprint believes that utilizing a bifurcated rate structure (segregating the switching charge into a call setup charge and a call duration charge) most accurately matches the charges to the underlying costs, thereby ensuring that the costs are recovered appropriately. As is stated in Sprint witness Cox's testimony, switching costs can be easily separated into call set-up and per MOU costs to support this bifurcated cost development process. Sprint's proposed bifurcated switching rates are provided in MRH Exhibit 1 under the heading Reciprocal Compensation.

Q. What is Sprint's proposed rate structure for dedicated transport?

A. As explained in the testimony of Sprint witness Cox, transport costs are developed on a route-by-route (i.e., wire center-to-wire center) basis. Dedicated transport costs were developed for DS1, DS3, OC3, and OC12. However, OC3 and OC12 service is not available on all routes in Florida.

Sprint has developed weighted statewide average termination and transit rates in accordance with Sprint's understanding of the Commission's

ruling in the Phase II proceeding. The weighted average termination and transit rates were then applied on a route- by-route basis to determine route-specific dedicated transport rates. Sprint's proposed dedicated transport rates are provided in MRH Exhibit 4.

Q. What is Sprint's proposed rate structure for common transport?

A. Sprint witness Cox developed the weighted average DS1 cost for transport within each local and EAS calling area for each exchange. This weighted average DS1 rate was then divided by 364,194, which is based on a Florida-specific traffic study of common use switched trunks.

Sprint has filed statewide average common transport rates in accordance with its understanding of the Commission's ruling in the Phase II proceeding. Sprint's proposed common transport rate is provided in MRH Exhibit 1.

Q. What is Sprint's proposed rate structure for tandem switching?

A. The tandem switching rate was developed following the same approach that was used for common transport. Sprint witness Cox first developed the tandem switching costs for each local exchange and EAS calling area. Sprint has proposed a statewide average tandem switching rate found in MRH Exhibit 1.

Q. What is Sprint's proposed rate structure for dark fiber?

A. Dark fiber costs were developed for interoffice, feeder, and distribution plant dark fiber.

Sprint witness Dickerson calculated interoffice fiber costs for each wire center. The costs were developed on a per foot, per fiber basis. Sprint believes that the cost variances derived for the interoffice fiber are not sufficient to warrant deaveraging. Therefore, Sprint proposes a statewide average interoffice dark fiber rate as shown in MRH Exhibit 1.

Sprint witness Dickerson also calculated the fiber feeder costs by wire center. Sprint proposes a statewide average feeder dark fiber rate as shown in MRH Exhibit 1.

Sprint has limited fiber distribution plant, and therefore lacks sufficient data to develop a deaveraged dark fiber cost for fiber distribution plant. Sprint, therefore, proposes to use an average cost as the rate for distribution fiber. The proposed rate is provided in MRH Exhibit 1.

The rate for a dark fiber loop would be the sum of the statewide averaged dark fiber feeder and distribution rates.

Issue 9(b): Subject to the standards of the FCC's Third Report and Order, should the Commission require ILECs to unbundle any other elements or combinations of elements? If so, what are they and how should they be priced?

Q. Will this proceeding result in the establishment of rates for all UNEs identified in the FCC's rules?

A. No. In its Third Report and Order in CC Docket 98-147 and Fourth Report and Order in CC Docket 96-98, released December 9, 1999, the FCC added to its list of UNEs the requirement for incumbent LECs to unbundle the high frequency portion of the loop spectrum, an arrangement commonly referred to as "line sharing". This UNE was not included in the stipulated list of UNEs for which rates would be determined in this proceeding. It is Sprint's understanding that the Commission will initiate a separate proceeding to determine rates for this UNE.

Also, the FCC has defined Operational Support Systems (OSS) as an unbundled network element. The rates for OSS are being addressed in a separate proceeding, and are not included in this filing.

Q. Are there any other UNEs or UNE combinations that the Commission should require ILECs to unbundle in this proceeding?

A. No.

Issue 12: Without deciding the situations in which such combinations are required, what are the appropriate recurring and non-recurring rates for the following UNE combinations:

(a) "UNE platform" consisting of: loop (all), local (including packet, where required) switching (with signaling), and dedicated and shared transport (through and including local termination);

(b) "extended links," consisting of:

(1) loop, DSO/1 multiplexing, DS1 interoffice transport;

(2) DS1 loop, DS1 interoffice transport;

(3) DS1 loop, DS1/3 multiplexing, DS3 interoffice transport.

Q. What is Sprint's proposed rate structure for the UNE-platform?

A. The UNE platform consists of the loop, switch port, usage sensitive switching, and transport. With the exception of the loop, the rate for the UNE platform should be the sum of the statewide average rates for each individual element.

In the case of loop and switch port, costs (such as line card costs associated with loops provisioned through a DLC) that are included in each element when bought on a standalone basis can be eliminated when they are provided in combination. Therefore, it was necessary to develop a combined loop and port cost for each wire center. The combined costs were then banded based on the 2-wire banding results, resulting in 3 rate bands, as shown in MRH Exhibit 1.

Q. What is Sprint's proposed rate structure for enhanced extended loops (EELs)?

A. Because EELs consist of the loop and transport unbundled elements, Sprint proposes that the rate for an EEL will be calculated as the sum of the banded loop rate and route-specific dedicated transport rate in the combination. Furthermore, multiplexing rates necessary for EEL have been developed as shown in MRH Exhibit 1.

Q. What are the current FCC rules pertaining to an incumbent LECs obligation to combine elements?

A. Section 51.315(b) of the FCC's Rules states that "Except upon request, an incumbent LEC shall not separate requested network elements that the incumbent LEC currently combines."

Q. How did the Florida PSC define "currently combined"?

A. The Commission defined "currently combined" in Docket No. 000828-TP, Order No. PSC-01-1095-FOF-TP to mean those combinations that are, in fact, already combined and physically connected at the time a requesting carrier places an order.

Issue 13: When should the recurring and non-recurring rates and charges take effect?

Q. When should the UNE rates that will be determined in this proceeding take effect?

A. Sprint recommends that carriers be required to file UNE rates that conform to the Commission's Order 60 days after the release of the Order. Those rates would become effective on the date they are filed.

Q. Does that conclude your testimony?

A. Yes.

SPRINT
DOCKET NO. 990649B-TP
FILED APRIL 10, 2002

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

SUPPLEMENTAL DIRECT TESTIMONY

OF

MICHAEL R. HUNSUCKER

Q. Please state your name and business address.

A. My name is Michael R. Hunsucker. I am Director-Regulatory Policy, for Sprint-United Management Company. My business address is 6450 Sprint Parkway, Overland Park, Kansas 66251.

Q. Are you the same Michael R. Hunsucker that filed Direct Testimony is this docket?

A. Yes, I am.

Q. What is the purpose of your supplemental direct testimony?

A. The purpose of my supplemental direct testimony is to present Sprint-Florida, Inc.'s ("Sprint's") revised banding proposal for unbundled loops. I will provide an explanation of why the change is required along with a revised price list (attached as Revised Exhibit MRH-1), and a revised collapsed banding proposal worksheet (attached as Revised Exhibit MRH-2). My original Exhibit MRH-3 remains unchanged.

Q. Please provide an overview of Sprint's original banding proposal as filed in your direct testimony on November 7, 2001.

A. In my original direct testimony, filed November 7, 2001, I provided a detailed analysis of four specific criteria that the Commission should utilize for incumbent LECs to deaverage their unbundled network elements. In summary, I asserted that: 1) prices for UNEs should be deaveraged to the degree necessary to avoid significant deviations between the rate charged and the actual forward-looking costs (page 15 of Hunsucker direct testimony); 2) the degree of rate deaveraging should be based on both administrative considerations and a realistic assessment of the potential impact to competition (page 16 of Hunsucker direct testimony); 3) deaveraging should occur on a wire center basis (page 17 of Hunsucker direct testimony); and 4) incumbent LECs should be required to group wire centers into zones based a +/- 20% deviation (page 17 of Hunsucker direct testimony).

More importantly, Sprint proposed that it's loop banding proposal be consistent with the banding requirements placed on BellSouth in its phase of this proceeding to ensure implementation of a non-discriminatory methodology on all carriers in the state of Florida. Sprint originally asserted that the Commission adopted a modified Sprint proposal that resulted in three bands that placed approximately 61%, 34% and 5% of the access lines in the resultant three bands. Therefore, Sprint collapsed the number of bands produced by its methodology to

three bands with approximately the same distribution of access lines in each band.

Q. You state in your answer to the prior question that "Sprint originally asserted...". Is Sprint's original assessment of the May 25, 2001 Commission Order (PSC-01-1181-FOF-TP) as it applied to BellSouth incorrect?

A. Yes, it is. Sprint based the relative distribution factors (61%, 34$, 5%) on the BellSouth compliance filing of September 24, 2001. In this filing, BellSouth apparently erred in the placement of wire centers into the appropriate three bands. In the process of reviewing all of the Commission Orders and resultant BellSouth filings, Sprint discovered on April 9, 2002, that the September 24, 2001, BellSouth compliance filing upon which Sprint relied for its analysis was incorrect. Appendix B as contained in the Commission's May 25, 2001, Order contained the wire center-to-band assignments that the Commission required BellSouth to utilize in banding its unbundled loops. The September 24, 2001, BellSouth compliance filing is not consistent with Appendix B. It should be noted that BellSouth corrected this difference in a filing that was made on October 8, 2001. Sprint did not understand that the October 8th filing included this adjustment and continued to base its analysis on the September 24th BellSouth filing. The end result is that Sprint's banding proposal is not consistent with the Commission requirements placed on BellSouth and therefore needs to be adjusted.

Q. How does Sprint propose to correct this inconsistency?

A. Sprint has thoroughly reviewed all of the Commission Orders relative to BellSouth in this proceeding along with all of the BellSouth compliance filings to ensure a complete understanding of the resultant banding methodology. Sprint is proposing revised loop rates consistent with the Commission ordered banding methodology.

Q. Please describe Sprint's understanding of the Commission ordered banding methodology.

A. In Order No. PSC-01-1181-FOF-TP, dated May 25, 2001, the Commission stated that "Sprint's 20% distribution methodology is acceptable when used in conjunction with a lesser number of zones. Thus, we shall apply Sprint's 20% methodology, but shall collapse the number of geographic zones to three." (Order No. PSC-01-1181-FOF-TP, pg. 41.) Thus, the Commission required a three-band proposal that collapsed the Sprint proposed five zones into three. Further, the Commission balanced the number of zones with administrative ease and the level of variation in BellSouth's costs and found three zones to be the most reasonable.

Q. Using the Sprint's 20% distribution methodology, what is the resultant number of zones based upon Sprint's cost data and how many zones does Sprint propose on a collapsed basis?

A. Exhibit MRH-3, as attached to my original direct testimony, is the non-collapsed banding proposal consistent with Sprint's 20% methodology. Application of this distribution methodology results in nine zones. Consistent with the Commission finding in the BellSouth phase of this proceeding, Sprint proposes that these nine zones be collapsed into three zones based upon the Commission finding of administrative ease and level of variation of Sprint's costs. On the level of variation of BellSouth's costs, its October 8, 2001, compliance filing contained SL-1 costs that range from a low of $8.21 to a high of $226.21. This represents a multiple of 27. Similarly, Sprint's 2-wire loop costs ranges from a low of $11.78 to a high of $306.78 which represents a multiple of 26. Thus, the level of variation from low to high is similar between the two companies.

Q. How is Sprint proposing to collapse the number of zones from nine to three?

A. Sprint proposes to collapse zones one and two into new zone one, collapse zones three and four into new zone two and collapse zones, five, six, seven, eight and nine into new zone three. This results in 2-wire analog prices of $18.58, $30.26 and $66.91 respectively for zones one to three (Revised Exhibit MRH-1). Sprint had originally proposed 2-wire analog prices of $21.22, $34.52, and $68.81, respectively.

Consistent with the BellSouth decision, all remaining loop types are then

placed in the same zones as the 2-wire analog loop, and a mathematical average is determined by loop type and zone. These resultant prices are contained in Revised Exhibit MRH-1.

Q. Does this conclude your testimony?

A. Yes, it does.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

SURREBUTTAL TESTIMONY

OF

MICHAEL R. HUNSUCKER

Q. Please state your name and business address.

A. My name is Michael R. Hunsucker. I am Director-Regulatory Policy, for Sprint-United Management Company. My business address is 6450 Sprint Parkway, Overland Park, Kansas 66251.

Q. Are you the same Michael R. Hunsucker that filed Direct Testimony is this docket?

A. Yes, I am.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to address on behalf of Sprint-Florida, Inc. ("Sprint") several issues raised by KMC witness Frank W. Wood.

Q. On page 17, Mr. Wood maintains that the Sprint and Verizon pricing proposals do not help promote competitive entry or expansion of competitive options. What is Sprint's reaction to this claim?

A. As discussed in my Direct Testimony, filed November 7, 2001, Section 252(d)(1) of the Telecom Act of 1996 (Telecom Act) sets forth the pricing standards for Interconnection and for unbundled network elements, and specifically requires rates for these elements be based on forward-looking costs. Sprint agrees that the goal of the Telecom Act of 1996 was indeed to promote competitive local entry. However, the assertion that unbundled network element prices should be set at a level to ensure local competition is simply incorrect. Arbitrarily reducing an ILEC's UNE rates below cost, which reflect the actual cost of providing the UNE, for the sake of promote competition has the effect of subsidizing a CLEC's entry by forcing the ILEC to under-recover its actual costs of providing the UNE. Nowhere in the Telecom Act is there a requirement that the ILEC subsidize a CLEC's costs at the expense of under-recovering its own costs.

Q. On page 11, Mr. Wood states that KMC's investors deserve a return on their investment. Do you agree?

A. Sprint does not disagree. However, if Sprint were forced to subsidize the UNEs rates paid by KMC or any CLEC by not fully recovering the costs

actually incurred to provide the UNE, Sprint's investors would not be pleased either. Moreover, as I stated previously, the Telecom Act does not require the ILEC to price its UNEs below-cost so that the CLEC and its investors receive a return on their investment.

Q. On page 21, KMC witness Wood expresses concern regarding the differences between UNE rates and retail rates and makes the argument that you cannot avoid retail rates when setting wholesale rates. Do you agree with Mr. Wood?

A. No. As mentioned in my Direct Testimony, although Sprint fully appreciates the differences between existing retail rate structures and levels and the rate levels and structures for unbundled network elements, how these differences should be resolved is equally clear to Sprint. Consistent with the mandate of the Telecom Act, Section 252(d)(1)(A), UNEs are to be priced "...based on cost (determined without reference to a rate-or-return or other rate-based proceeding) of providing the interconnection or unbundled network element (whichever is applicable),...". There is simply no requirement in the Telecom Act or the FCC rules that places any limitation on the price of UNEs relative to retail rates.

Mr. Wood is obviously referring to the retail rates for basic residential services relative to the underlying price of UNEs. To the extent that the

retail rate levels or rate structures are not supportive of the underlying cost of the UNEs used in the provisioning of the service, Sprint believes that the rates for these services should be restructured to recover such costs. In the interim, however, any attempt to bring this into conformance in this proceeding is misplaced. Such an effort is beyond the focus of this proceeding.

Q. On page 20, KMC witness Wood contends that Sprint, operating as an ALEC in the BellSouth territory, is in a better position to compete with BellSouth than KMC can compete with Sprint's ILEC operations" since BellSouth's rates are lower in some areas. Do you agree with Mr. Wood?

A. No. In accordance with the Telecom Act and the FCC's rules, Sprint has filed UNE rates that accurately portray Sprint's real cost of providing unbundled network elements in Florida. Likewise, the rates approved for BellSouth must reflect BellSouth's actual costs of providing UNEs in Florida. There is simply no basis for making a claim that BellSouth's costs should be reflective of Sprint's costs. As mentioned by witness Dickerson, there are valid operating differences between BellSouth and Sprint that logically results in differences in the forward-looking UNE rates. In addition, KMC has the ability to purchase UNEs at the same rate as Sprint in BellSouth territories. Therefore, KMC's competitive disadvantage argument is without merit.

Q. On page 23, KMC witness Wood asks the Commission to consider "adopting more rather than fewer bands". Do you agree with this suggestion?

A. No. Sprint should not have to deaverage into more bands than any other ILEC in the state of Florida. However, Sprint would not be against further deaveraging assuming the methodology adopted by the Commission would put them on a level playing field with all ILECs in the state. As mentioned in my Direct Testimony, Sprint proposed a 20% deavearging proposal that produced more than 3 bands. However, this proposal was not fully adopted by this Commission in the BellSouth docket. Therefore, Sprint would most definitely be at competitive disadvantage if forced to deaverage into more bands than was deemed acceptable in the BellSouth docket.

Q. Does that conclude your testimony?

A. Yes.

MR. FONS: Next we have the direct and surrebuttal testimony of Kent Dickerson. Mr. Dickerson's direct testimony consists of 38 pages and his surrebuttal testimony consists of 6 pages. I would ask that Mr. Dickerson's direct and surrebuttal testimony be inserted into the record as though read.

CHAIRMAN JABER: The direct and surrebuttal testimony of Kent W. Dickerson shall be inserted into the record as though read.

MR. FONS: Attached to Mr. Dickerson's testimony, and he was sponsoring Exhibits KWD-1, KWD-2, KWD-3 and KWD-4. I would note that KWD-2 has two versions, the redacted version, the public version and a confidential version, which is basically Volumes 2 and 3 of Exhibit KWD-2. KWD-2 is made up of three volumes.

CHAIRMAN JABER: What's KWD-4, Mr. Fons? I don't have that listed.

MR. FONS: Just a minute.

MR. FUDGE: Chairman, it's entitled, "The Florida Density Comparison."

CHAIRMAN JABER: Florida Density Comparison. Okay. All right.

MR. FONS: Thank you.

CHAIRMAN JABER: Mr. Fons, would you like KWD-1 through KWD-4 as a composite exhibit?

MR. FONS: Yes, Madam Chairman.

CHAIRMAN JABER: That will be identified as Composite Exhibit 2, and, again, that's KWD-1 through KWD-4, and Composite Exhibit 2 is admitted into the record.

MR. FONS: Can we have the confidential version of KWD-2 marked separately as a different, as a separate exhibit?

CHAIRMAN JABER: You mean to have KWD-2 removed from Composite Exhibit 2 or to identify separately the confidential portion?

MR. FONS: Yes. A separate confidential portion, yes.

CHAIRMAN JABER: Okay. Exhibit 3 will be the confidential portion. Is that all right, Staff?

MR. FUDGE: That's fine.

CHAIRMAN JABER: The confidential portion of KWD-2. And Exhibit 3 is admitted into the record.

MR. FONS: Yes. Thank you. I'd like to point out that in Volume 2, Tab 11, the loop portion, the pages were revised as a result of Mr. Hunsucker's supplemental direct testimony. And those pages are Pages 53 to 79 of 79, and then Tab 10 in Volume 2, which is the cost summary, Page 1 of 11 to 11 of 11 have been revised. And that would apply to Volume 2 of KWD-2, both the confidential and nonconfidential version.

CHAIRMAN JABER: Okay. I think your clarification is sufficient for the record.

(Composite Exhibit 2 and Exhibit 3 marked for identification and admitted into the record.)

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DIRECT TESTIMONY

OF

KENT W. DICKERSON

Q. Please state your name, business address, employer and current position.

A. My name is Kent W. Dickerson. My business address is 6360 Sprint Parkway, Overland Park, KS 66251. I am employed as Director - Cost Support for Sprint/United Management Company.

Q. Please summarize your qualifications and work experience.

A. My qualifications and work experience are summarized in Exhibit KWD-1.

Q. What is the purpose of your Testimony?

A. My testimony sponsors the TELRIC cost studies on behalf of Sprint-Florida, Inc. ("Sprint"). for the following list of unbundled network elements (UNEs):

Loop (all types)

Loop Sub-Elements

Dark Fiber (Loop and Interoffice)

Loop, Switch and Transport Combinations

Enhanced Extended Links

Network Interface Devices

Inside Wire

Annual Charge Factors

Expense Studies

My testimony, in concert with Sprint's cost study filing, will describe how Sprint's UNE cost studies for the items listed above are developed to be forward-looking, deaveraged, and specific to the markets served by Sprint in Florida.

I am sponsoring the Sprint Cost Study (Volume II) which is identified as Exhibit KWD-2 and also includes the narratives (Volume I) and the workpapers (Volume III). Although I am the primary witness for the Cost Study, there are sections of the Cost Study, narratives and workpapers which are the responsibility of other witnesses. Exhibit KWD-3, which is included as an attachment to my testimony, identifies each section of Sprint's Cost Study and the Sprint witness that supports the section.

Q. Please describe the responsibility assignments of Sprint's witnesses in this docket.

A. My testimony addresses the deaveraged cost studies listed above. In addition, I will provide a description of Sprint's TELRIC study process.

Mr. Michael Hunsucker provides testimony on the appropriate prices for all UNEs. His testimony provides Sprint's positions on the price deaveraging issues in this docket.

Mr. Talmage Cox's testimony addresses unbundled dedicated and common transport and elements for local switching.

Mr. Jimmy Davis' testimony addresses the non-recurring charges for all UNEs.

Mr. Terry Talken provides testimony on unbundled Signaling and Call Related Databases.

Mr. Brian Staihr presents testimony on the appropriate cost of capital inputs utilized in Sprint's TELRIC studies.

Q. Please describe Sprint's position on an appropriately developed TELRIC cost of service study.

A. Sprint believes that the major characteristics of an appropriately developed TELRIC cost of service study are as follows:

1. The ILEC's prices for interconnection and unbundled network elements will recover the forward-looking costs directly attributable to the specified element, as well as a reasonable allocation of forward-looking common costs. (FCC Order, para. 682.)

2. Per-unit costs will be derived from total costs using reasonably accurate "fill factors" (estimates of the proportion of a facility that will be "filled" with network usage); that is, the per unit costs associated with a particular element must be derived by dividing the total cost associated with the element by a reasonable projection of the actual total usage of the element. (FCC Order, para. 682.)

3. Directly attributable forward-looking costs will include the incremental costs of shared facilities and operations. Those costs will be attributed to specific elements to the greatest extent possible. Certain shared costs that have conventionally been treated as common costs (or overheads) will be attributed to the individual elements to the greatest extent possible. (FCC Order, para. 682.)

4. The forward-looking pricing methodology for interconnection and unbundled network elements should be based on costs that assume that wire centers will be placed at the ILEC's current wire center locations. The reconstructed local network will employ the most efficient technology for reasonably foreseeable capacity requirements. (FCC Order, para. 685.)

5. Only forward-looking, incremental costs are included in a TELRIC study. (FCC Order, para 690.)

6. Retailing costs, such as marketing or customer billing costs associated with retail services, are not attributable to the production of network elements that are offered to interconnecting carriers and are not included in the forward-looking direct cost of an element. (FCC Order, para. 691.)

Q. Please describe the generic approach used by Sprint in performing TELRIC studies.

A. Sprint uses a consistent approach in performing TELRIC studies for the unbundled network elements. The following steps can generally describe the TELRIC study methodology:

A. Determine Network Design. The study begins with a determination of the forward-looking, most efficient network architecture. The network design is based on existing wire center locations, as directed in the FCC Order, and reflects currently available technology, which is appropriate and efficient for current and reasonably foreseeable demand levels.

B. Determine Forward-Looking Installed Cost. Using Sprint's current vendor material costs and labor rates specific to Sprint's serving area, the incremental installed costs for all investment required to build a functioning unbundled network element are determined. The investments considered are those meeting the incremental cost causative standard laid out in the FCC Order. Determination of the

incremental investments is based on the long run as defined in FCC Order, Paragraph 692 and total element demand quantities.

C. Develop Capital and Expense Costs. Capital and Expense Costs reflect the total cost of owning and operating a specific type of asset. They are developed at the FCC account level and include the annual cost of depreciation, a return on investment, income taxes, maintenance expenses, network operations expense (testing, monitoring), and other taxes.

Related to the depreciation and return on investment components of these factors, the FCC provides clear direction in paragraph 703 of the First Report and Order in Docket No. 96-98 as follows:

> "We conclude that an appropriate calculation of TELRIC will include a depreciation rate that reflects the true changes in economic value of an asset and a cost of capital that appropriately reflects the risks incurred by an investor."

Accordingly, as addressed in the testimony of Mr. Brian Staihr, Sprint's cost of capital complies with the FCC's directives and reflects a "risk-adjusted cost of capital."

The forward-looking, efficient levels of direct maintenance, network operations expense and other taxes were developed using Sprint's actual experience with owning and operating the associated forward-looking technologies in Florida. Costs associated with obsolete technologies were excluded from the forward-looking TELRIC results.

D. Determine Reasonable Contribution to Common Costs. The FCC Order provides clear direction that the price of unbundled elements should include a reasonable allocation of common costs. In accordance with this direction, Sprint includes a contribution to common costs in its TELRIC study results. This is accomplished by calculating a percentage-loading factor, which is applied uniformly to all unbundled element TELRIC results.

Issue 3

What are xDSL capable loops?

Q. Will you please address issue 3?

A. As a general and practical matter, xDSL capable loops are copper loops that are 18,000 feet in length or shorter. To be xDSL capable, a loop must not contain any devices that impede the xDSL frequency signaling such as repeaters, load coils or excess bridged tap. Copper loops which contain any of these three will require loop conditioning to remove the repeaters, load coils or excess bridged tap. The associated non-recurring charges for this

loop conditioning work is explained in the testimony of Sprint witness Mr. Jimmy Davis.

To be technically correct, it should be noted that some fiber fed NGDLC vendors have recently developed plug-in cards that can be used at the NGDLC location to provide xDSL service to customers served by the NGDLC. However, to this point in time neither the FCC nor the Florida Public Service Commission has designated these plug-in cards as subject to UNE unbundling. Therefore, the current practical result in Florida is that unbundled xDSL capable loops will be copper or copper distribution loop sub-elements.

Q. Do some CLECs request xDSL capable loops in excess of 18,000 feet in length?

A. Yes. In those cases Sprint will provide any available copper loop in excess of 18,000 feet at the ALEC's request. Sprint will perform any loop conditioning requested by the ALEC and the ALEC will be charged for that loop conditioning work. As a loop length in excess of 18,000 feet is beyond the generally accepted industry standard limit for xDSL, Sprint will accept no responsibility for the xDSL capabilities of conditioned copper loops longer than 18,000 feet.

Q. Should a cost study for xDSL capable loops make distinctions based on loop length and/or the particular DSL technology to be deployed?

A. Other than the 18,000 feet distinction described above, no. As described above, copper loops 18,000 feet and shorter that contain no repeaters, load coils or excess bridged tap require no further cost study distinctions. As described more fully in the testimony of Mr. Jimmy Davis, Sprint makes logical distinctions in the NRCs for loop conditioning depending on whether the loop is longer or shorter than 18,000 feet. Sprint's recurring charges, however, require no distinction in the underlying loop cost other than for standard issues of loop length, terrain, customer density, plant mix, etc. that are already reflected in Sprint's unbundled loop cost studies.

Issue 7 - Appropriate Assumptions

What are the appropriate assumptions and inputs for the following items to be used in the forward-looking recurring UNE cost studies?

Depreciation

Q. Please describe the Depreciation inputs used to develop Sprint's forward-looking cost of UNEs.

A. The FCC's TELRIC pricing requirement for unbundled network elements requires the depreciation component of TELRIC be based on forward-looking economic lives of the underlying UNE asset categories (Paragraph 703 of FCC First Report and Order 96-98). Accordingly, Sprint has developed forward-looking economic lives for all UNE asset categories and normally

utilizes these lives in its UNE cost studies. In this filing, however, Sprint has made what it hopes the Commission will find to be an appropriate and practical concession, and has used the depreciation lives ordered for BellSouth's use in Phase II of this docket.

Tax Rates

Q. What tax rates were utilized in Sprint's UNE cost studies?

A. Sprint's filing utilizes the Federal and State income tax, state ad valorem tax, and the Regulatory Assessment Fee tax rates currently in effect in Florida. The Federal and State income tax and state ad valorem tax are reflected in the specific inputs utilized in Sprint's annual charge factor development, which are contained in the ACF section of the cost study documentation. The Regulatory Assessment Fee Tax is included in the common cost factor development and application.

Structure Sharing

Q. Please describe the structure sharing input.

A. Structure sharing refers to the portion of aerial structure (poles), and buried cable and conduit excavation costs, that are shared with other companies. The structure sharing inputs are expressed in terms of the percent of costs assigned to telephone, which equates to the percentage of the structure cost that is borne by the ILEC. The reciprocal of this input factor represents the portion of the structure cost that is borne by companies other than the ILEC, such as power and/or cable companies. The model inputs are segregated between feeder and distribution sub-loop components, by aerial, buried and

underground plant mix, and by each of the nine customer density zones. Sprint's inputs are located at the tab labeled "Loop". The structure sharing inputs are also discussed in section III.B.4 of the Loop documentation.

The structure sharing inputs for underground and buried feeder and distribution cables were set at 90% for the majority of the customers served by Sprint. This level of cost sharing of 10% exceeds the degree of structure cost sharing currently experienced by Sprint in Florida and thus allows for some forward-looking increase in structure sharing opportunities. The structure sharing inputs for the plowing construction technique used for placing buried feeder and distribution cables were set at 100% to reflect the reality that when plowing, the trench is closed over during the placement of the cable, thus eliminating the possibility of other entities placing cables in the same trench.

The structure sharing input for poles was set at 31% for all density zones. This input is based on an analysis of Sprint's experience specific to Florida, both with renting pole space from other entities and with allowing other entities to rent space on Sprint owned poles. Workpaper 9 in the loop documentation details the Florida-specific analysis supporting this model.

Q. Why are the opportunities to share below-ground construction costs with power and cable companies limited?

A. In addition to the considerable difficulty in scheduling simultaneous cable placements among diverse utilities, there are work coordination, safety, and available space considerations which make significant sharing of buried and underground construction costs unlikely.

For example, the National Electric Safety Code requires a minimum of 12 inches of well-tamped earth fill separating power and telephone cables placed in the same trench. This is necessary to protect persons working on telephone cables that are not equipped or qualified to work with the voltage levels of power company cables. This critical precaution, requiring that any trenches shared with power companies be dug at least 12 inches deeper or wider, significantly increases the cost of creating the trench and reduces the savings opportunities for sharing trenches with power companies. Further, the locations for telephone company central offices, power company sub-stations and cable company head-ends often do not correspond. Therefore, it is not possible to share a common trench because the feeder routes for each company's facilities do not originate from the same geographic locations.

The structure sharing opportunity for buried cable is limited to the single point in time when the trench is initially opened. Trenches must be backfilled prior

to cable being placed into service. Therefore, in order to share the cost of the trench, companies must be willing to place cable at a specific location, at the same point in time. This limits the sharing with other companies to those instances where the timing of each companies' need for facility construction is perfectly aligned. This reality further limits structure-sharing opportunities.

Structure Costs

Q. Please describe the structure cost input.

A. Structure costs are the costs for structures (conduit systems, trenches, poles) supporting copper and fiber feeder and distribution cable. The structure cost inputs fall into two basic categories: the type of construction activity (e.g., trench and backfill, cut and restore sod, plowing, bore cable) and the percent of construction done using the various construction activities (e.g., buried distribution cable construction done using plowing 37% of the time and boring 59% of the time for the high customer density zones.). Sprint's inputs are filed in the Loop section of the documentation, and described in section III.B.4.

Sprint's Florida-specific structure cost inputs were developed based on an analysis of the entire 1999 and 2000 contractor construction costs and activities as tracked in Sprint's Network Construction Activity Program (NETCAP). As such, it provides the most current, verifiable and pertinent data available for predicting the forward-looking costs of construction in the

same markets from which the data was drawn. The workpapers supporting the structure cost inputs are located in the loop documentation.

Fill Factors

Q. Could you please describe the term fill factor?

A. Yes. Fill factors are the percentage of available network capacity utilized. Utilization is due to the following three factors:

Anticipation of future needs: When engineering and constructing telecommunications facilities, local exchange companies ("LECs"), both ILECs and alternative LECs ("ALECs"), attempt to anticipate future needs. For example, it is more cost-effective to dig a trench once and install facilities necessary to meet additional forecasted demand, than to dig up the trench and install new facilities every time a new loop is required.

Capacity Acquired in "Blocks": Telecommunications plant capacity is acquired in large blocks. For example, towards the high end, copper cable is only available in step increments that increase by 600 pairs for the next larger size (2400, 3000, 3600, 4200). Therefore, unused capacity will exist while demand grows into the available capacity.

Construction Time: An engineering interval (the period of time necessary to plan and construct facilities) is required when replacing or expanding capacity.

Efficient deployment of cable balances the cost-benefit relationship of unused capacity and the cost of installation. Inadequate capacity results in the Company's inability to meet its customers' expectations for new service installation intervals. The current levels of cable fill in Sprint's Florida network today allows our customers to generally enjoy a service level of 3 days or less for new service installation. The same cable fill is needed to meet ALECs' expectations for parity in the provisioning of new service installations for unbundled local loops.

Q. Please describe Sprint's cable fill factors used in this filing.

A. Sprint's cable fill factor inputs are located in the Loop section of the documentation in the Density Cable Sizing Factor Table. A full description of this model input development is contained in section III.B.4 of the loop documentation. The associated workpapers may also be found with the loop documentation.

Sprint's feeder cable fill factors were developed based on Florida wire center-specific data for feeder cable fills. The feeder cable fill inputs were adjusted to reflect the reality that the cost model must select the ultimate cable size from the available cable sizes which results in some additional non-utilized cable pairs. The distribution cable fill inputs were set at 100% in concert with a model input of two distribution pairs per household. The

assumption of two distribution pairs per household reflects the actual and forward-looking, least-cost practice of placing two distribution cable pairs at each house at the point of initial construction. This practice is the least cost method of meeting customer demand for multiple lines to a household and avoids costly inefficient construction to place second lines at a later date.

Manholes

Q. How were Sprint's cost model inputs for Manholes/Handholes developed?

A. Sprint's cost model inputs for manholes are located in the loop documentation. The associated workpaper is located in the loop documentation. Sprint's Florida-specific material and labor costs and manhole/handhole spacing was used to develop these inputs. The structure sharing inputs for manholes were set at a conservative level in excess of Sprint's actual experience to allow for some possible increase in structure sharing for manholes and handholes on a forward-looking basis. The sharing input for conduit is set at 100%, consistent with the fact the model places no conduits in excess of those necessary for underground telephone cables and thus there is no spare conduit (or associated cost) to sell to an outside party.

Fiber and Copper Cable

Q. Please describe Sprint's inputs for Fiber and Copper cable.

A. Sprint's cost model inputs for fiber and copper cable are found in Loop section of the documentation. A full description of the process used to develop these inputs is contained in the Section III.B.4 of the loop documentation along with work papers showing the development of the inputs for SLCM. A summary description of the cable cost input development is provided below.

The material cost portion of Sprint's inputs for fiber and copper cable was developed using Sprint's current vendor cost for purchasing cable and adding Florida-specific sales tax due on those purchases. An analysis of Sprint's cable installations in Florida for 1998-2000 was done to develop a cost that includes exempt and other material (such as splice enclosures and cable mounting hardware) overhead and cable placement, splicing and engineering costs. The data analyzed for this Florida-specific cost input was obtained from Sprint's Project Administration and Costing System (PACS).

Drops

Q. Please describe Sprint's cost model inputs related to Drop wires and terminals.

A. Sprint's cost model inputs for drop wire and terminals are found in the Loop documentation. The process and workpapers used to develop these inputs

is described in the loop documentation. A summary description of these inputs is provided below.

The drop wire and terminal inputs reflect Sprint's current vendor material costs and applicable Florida-specific sales tax and exempt material loadings. The placement cost portion of the inputs for aerial drops and both aerial and buried terminals are based on Florida-specific labor hour costs and labor hour estimates provided by Sprint outside plant experts working in Florida. The placement cost for a buried drop is based on Sprint's Florida-specific contractor cost for buried drop placement.

Network Interface Devices (NIDs)

Q. Please describe Sprint's cost study process and associated inputs for NIDs.

A. The cost study, narrative description, and results for NIDs is contained under the tab labeled "NID" of the cost study. Sprint has provided the cost for 6-line and 25-line NIDs suitable for POTS applications and the cost for a Smartjack for DS1 applications. The material cost portion of these UNEs reflects Sprint's current vendor purchase cost for the three respective NID types. Installation of NIDs and Smartjack devices is included in the non-recurring charge cost study.

Digital Loop Carrier (DLC)

Q. Please describe the DLC cost inputs.

A. The DLC cost inputs are found in the loop documentation. A complete description of the DLC cost model inputs with supporting workpapers is found in the inputs section of the loop documentation. A summary description of the DLC inputs is provided below.

The DLC inputs reflect the combined material cost and engineering, outside plant, and central office installation labor costs for an installed DLC. The inputs include the cost of DLC site preparation including obtaining permits and concrete pad site engineering and installation. The material costs reflect Sprint's current vendor purchase prices and Florida-specific labor rates for engineering and installation. The labor hours for engineering and installation were provided by Sprint employees responsible for DLC engineering and installation.

As explained and illustrated in Section III.B.4 of the loop documentation, Sprint's DLC inputs for stand-alone unbundled loops reflect the additional equipment requirements necessary to deliver dedicated unbundled loops to ALEC customers collocated at the central office. This additional equipment is the Central Office Terminal and DS-0 level line card. As further explained in the UNE-P (combined loop and local switching) section, the DLC inputs are appropriately modified to reflect a lower cost GR-303 Integrated DLC (IDLC) configuration. This IDLC configuration can be utilized in UNE-P

applications because the link between the DLC and the switch can be combined with other customers served by the DLC and integrated straight into the switch on a common path. This reduces the cost of the DLC inputs by removing the central office equipment and DS-0 level line card costs necessary in stand-alone UNE loop applications.

Expenses

Q. Please explain how expenses are considered in Sprint's UNE cost study process.

A. The incorporation of forward-looking expense estimates in Sprint's UNE cost study process falls into four basic categories and/or processes: 1. The direct maintenance associated with capital investments underlying the various UNEs (e.g., buried copper cable maintenance, digital circuit equipment maintenance); 2. Other Direct Expenses associated with capital investments underlying UNEs (e.g., circuit engineering, cable pair record maintenance, trunk engineering); 3. Forward-looking common cost loadings; and 4. Expenses avoided when selling wholesale level UNEs vs. retail sales costs (e.g., billing and postage costs). I will address each of these expense categories and processes.

1. Direct Maintenance

The direct maintenance expenses associated with UNE capital investments are applied in the UNE cost study process by including a direct maintenance expense component in the Annual Charge Factor. The Annual Charge

Factor (ACF) development is explained in detail in the ACF section of the documentation. Using the relationship of Florida-specific 2000 direct maintenance to the associated gross capital investment, the direct maintenance expense loadings shown in the Annual Charge Factor Module Input Worksheet were developed. By applying these Florida-specific direct maintenance loadings to the corresponding forward-looking capital investment, an estimate of forward-looking direct maintenance is included in the UNE cost study.

2. Other Direct and Common Expenses

In the UNE cost study process it is necessary to consider forward-looking direct expenses beyond the direct maintenance expenses described above. Sprint has developed the Other Direct and Common (ODC) cost study model and process. This model and process is described in detail in the ODC section of the documentation. This study identifies the additional forward-looking direct expenses, such as traffic engineering or assignment functions, and develops loading relationships to the applicable UNE. The loading relationships for each Other Direct Expense account is based on four basic approaches explained in the ODC cost study narrative. Within the ODC study, the Assignment Driver provides the basis for each direct expense assignment to the various UNEs. The forward-looking TELRIC UNE investments are used to develop the other direct expense loading percentages thus assuring a forward-looking level of expense estimate.

Common costs such as furniture, office equipment, general purpose computers and corporate operations are also developed in the ODC study process. This portion of the ODC study process is also explained in detail in the narrative and study workpapers supporting the ODC study.

3. Avoided Cost Study

An integral part of the Other Direct and Common Cost study process is the consideration of expenses that can be avoided when selling UNEs on a wholesale basis versus sales of services on a retail basis. Sprint's expense study processes identify these "avoided costs" using its Avoided Cost model and study process (ACS) which is explained in detail in the ACS section of the documentation. The result of the ACS is fed into the ODC cost study described above. The ACS is an activity-based cost study process that identifies the avoided expense by expense category (subaccount) and assigns these expenses to service groups, based on an activity driver. The use of the ASC study process assures that Sprint's UNE cost study results properly exclude retail expenses that can be avoided when selling UNEs on a wholesale basis.

Issue 9

What are the appropriate recurring rates (averaged or deaveraged as the case may be) and non-recurring charges for each of the following UNEs?

Q. How does the FCC define an unbundled loop?

A. Paragraph 167 of FCC 99-238 states:

"We modify the definition of the loop network element to include all features, functions, and capabilities of the transmission facilities, including dark fiber and attached electronics (except those used for the provision of advanced services, such as DSLAMs) owned by the incumbent LEC, between an incumbent LEC's central office and the loop demarcation point at the customer premises."

2-Wire Voice Grade Loop

Q. Please describe the UNE Loop TELRIC study process.

A. Sprint's forward-looking wire-center specific costs of unbundled 2-wire loops are found in the Loop section of the documentation. Contained in this documentation is a narrative description of the UNE loop cost study process, the UNE Loop cost results for every Sprint Wire Center in Florida, and the cost model inputs used to generate these forward-looking cost estimates. Mr. Hunsucker's testimony addresses the prices for UNE loops resulting from the wire center UNE loop costs in the study and sponsored by this testimony.

The UNE loop cost study process follows the UNE cost study process outlined in the introduction of my testimony. As explained in the narrative filed in the loop section, Sprint utilized SCLM to develop the forward-looking

capital investments for unbundled loops. The individual inputs used in SCLM are provided in the loop documentation. The forward-looking capital investments generated by SLCM were fed into Sprint TELRIC UNE model, which combines the results of forward-looking investment and expense studies and generates wire center level monthly costs. The associated expense studies utilized within the Sprint TELRIC UNE model are also explained in detail in the documentation and elsewhere in this testimony.

Sprint's UNE loop cost studies are based on inputs developed using current, Florida-specific data where possible, so as to best predict the cost of serving specific wire centers within Florida. SLCM utilizes very granular customer density information in conjunction with the Sprint Florida-specific inputs so as to produce the best possible deaveraged UNE Loop cost estimates upon which to base pricing decisions.

Q. What factors affecting deaveraged UNE loop costs were considered in Sprint's UNE Loop TELRIC study?

A. The cost of unbundled local loops varies more on a geographic basis than any other UNE defined by the FCC's 96-325 Order. Under the broad category of physical geography, numerous factors affect the cost of providing loops to a specific customer location.

1. Customer Density - Customer density is the single largest factor impacting the cost of local loops. Customer density is commonly expressed in terms of customers or access lines per square mile. The

density of customers impacts loop cost in an inverse manner: the higher the customer density, the lower the cost of the local loop. This relationship is linked to a few fundamental issues, the first being a trench, conduit or aerial pole route is required regardless of whether a 25 pair or 2400 pair cable is placed. From this it is obvious the greater the customer density the more customers that can be served along a feeder or distribution cable route. Therefore, customer density ultimately determines how many customers or loops there are over which to spread the cost of digging the trench, placing conduit, and/or placing aerial pole line.

Customer density also drives the unit cost of other equipment components associated with loops. Loop components such as Serving Area Interfaces (SAIs) (the point of interconnection between feeder and distribution cables), Digital Loop Carrier (DLC) devices, and Drop Terminals, for example, are all similarly impacted by customer density and exhibit lower per unit costs as customer density increases.

2. Distance - The distance of a given customer location from the central office increases loop costs as the distance increases. This relationship between customer location compared to central office location results from the obvious need to place more cable, trenches, conduit, and/or aerial pole lines as the distance or length of the loop increases. As distance increases it generally increases the need for, and overall cost

of, maintenance. Assuming constant customer density, longer cables have more splice points and resulting exposure to risk. Greater number of splice points means there are more areas for possible failure due to lightning, water, rodents, vandalism, and accidents.

3. Terrain - The type of terrain in which cable is placed impacts both the cost of the initial cable placement and the maintenance of the cable. The cost of below-ground cable construction increases as the presence and hardness of rock increases. Terrain factors such as the water table, trees, and wetlands all affect the initial construction cost of loops and subsequent maintenance expense.

4. Weather - The extremes of weather affect the cost of maintaining cable and therefore significantly influence the type of cable placed (buried, aerial or underground). The cost of maintaining aerial plant in geographic areas that frequently experience hurricanes is certainly greater than those areas that seldom encounter these conditions.

5. Local Market Conditions - Issues such as local zoning laws requiring below-ground plant, screening and landscaping around SAI and DLC sites, construction permits and restrictions, heavy presence of concrete and asphalt, traffic flows, and local labor costs, all impact the construction and maintenance costs of loop plant and will vary between locations.

Sprint's use of SLCM in conjunction with Sprint-Florida-specific inputs allows the wire center-specific cost estimates to reflect the geographic specific impacts of all of the issues discussed above.

4-Wire Analog Loop

Q. How were the costs of 4-wire analog loops developed?

A. The wire center-specific monthly recurring costs for unbundled 4-wire analog loops is contained in documentation included with this filing. As explained in the narrative provided, the 4-wire loop cost is developed using the 2-wire loop cost study results explained above. To account for the increased cost of two copper pairs for those 4-wire loops served on copper, the 2-wire copper outside plant investment was doubled along with CO Termination and fiber bandwidth requirements. No other adjustments were necessary. The 4-wire analog loop cost study results, descriptive narrative, and workpapers are filed in the documentation.

2-Wire ISDN/IDSL Loop

Q. Does the cost of unbundled 2-wire ISDN/IDSL loops vary from 2-wire voice grade loops?

A. Yes. The cost of DLC line cards needed for 2-wire ISDN/IDSL loops is greater than those required for 2-wire voice grade loops. Additionally, for those loops served on fiber fed DLCs there is increased bandwidth requirements for the 2-wire ISDN/IDSL loops over that required for 2-wire

voice grade loops. Sprint has acknowledged these two necessary cost impacts through the development of a BRI-ISDN/IDSL loop. This loop cost is found in the cost study along with a narrative description and calculations.

2-Wire xDSL-Capable Loop

Q. Does the cost of 2-wire xDSL-Capable loops differ from the cost of 2-wire voice grade loops?

A. No, given the current limitation of 2 Wire xDSL-Capable loops to copper only. The forward-looking network design used within SLCM to develop the 2-wire voice grade loop is also capable of supporting xDSL service for those loops served on copper. The forward-looking network design is free from any load coils, repeaters, or excess bridged taps that would otherwise inhibit xDSL technology on those copper loops. The 2-wire xDSL-capable loop monthly recurring costs are identical to the 2-wire voice grade costs. However, as explained in Mr. Davis' testimony, the FCC has allowed ILECs to charge for the conditioning of copper loops in the embedded network so as to enable their use for xDSL technology. In accordance with the FCC Order's directive, Mr. Davis' testimony sponsors the loop conditioning non-recurring charges that may apply on 2-wire xDSL-capable loops.

4-Wire xDSL-Capable Loops

Q. How were the costs for these 4-wire loop types developed?

A. As explained for 2-wire xDSL-capable loops above, the forward-looking network design used for 4-wire analog loops requires no further adjustment for these additional 4-wire loop types (4-wire xDSL assumed to be provisioned on copper only). The monthly recurring cost for these 4-wire DSL loop types is the same as the cost of the 4-wire analog loops and therefore no separate cost study is necessary. As with 2-wire DSL loops, some loop conditioning NRCs may apply as explained in Mr. Davis' testimony.

DS-1 Loops and DS-0 56K/64K Loops

Q. How were the costs for DS-1 loops developed?

A. The costs for DS-1 and DS-0 loops were developed in a similar fashion as described for the 2-wire ISDN/IDSL loop above. The cost study reflects the additional investment to provide DS-1 functionality in the form of additional electronics needed at the central office and any remote terminal, and customer premises. The additional bandwidth required by a DS-1 loop is accounted for within the DS-1 calculations found within SLCM. The calculation of this DS-1 loop cost is explained and shown in the Loop documentation.

High Capacity Loops (DS-3, OC-3, OC-12, OC-48)

Q. Please describe the cost study process for High Capacity DS-3 unbundled loops.

A. The cost study results, narrative, and workpapers for DS-3 unbundled loops are found behind the tab named High Capacity Loops. A full description is contained in that documentation and I will summarize here. In order to model the cost of fiber facilities associated with DS3 loops, the existing DS-3 customers in Florida were geo-coded into Sprint's Loop Cost Model (SLCM). This allowed SLCM to model the fiber cable in the feeder and distribution cable plant associated with DS-3 customer locations. All of the necessary SLCM inputs related to installed fiber cable costs are the same as previously discussed for other loop types. The deaveraged fiber costs by wire center are shown in the High Capacity Loop study. The High Capacity Loop documentation and SLCM documentation describe the SLCM network design and model calculations created for this purpose.

Q. Please describe the cost study process for High Capacity OC-3, OC-12 and OC-48 unbundled loops.

A. The cost study results, narrative, and workpapers for DS-3 unbundled loops are filed behind the tab named High Capacity Loops. A full description is contained in that documentation and I will summarize here. The cost of fiber cable facilities for unbundled OC-3, OC-12 and OC-48 loops is the same as used for the unbundled DS-3 loop study described above. The

corresponding OC-n level terminal costs for each OC-n level unbundled loop are broken out between common terminal costs and plug-in DS-3 level card costs. This will allow the ALEC customers to manage their card costs to best match their bandwidth needs.

Dark Fiber – Loop and Transport

Q. How was the dark fiber – loop cost study performed?

A. The dark fiber – loop cost study results, narrative, and workpapers are found in the Dark Fiber section of the documentation. A full description is contained in that documentation and I will summarize here. The cost of fiber cable was developed in SLCM using the same inputs as described for all previous unbundled loop types. The dark fiber documentation and SLCM documentation describe the SLCM network design and model calculations created for this purpose. The dark fiber – loop costs are calculated in two distinct components--feeder and distribution.

The dark fiber – loop feeder result by wire center is calculated based on the per fiber cost of feeder routes created in SLCM to service existing DS-3 customer locations and forward-looking DLC sites. The dark fiber – loop distribution cost is the same as calculated by wire center for DS-3 unbundled loops and described above.

Q. Please describe the dark fiber – interoffice facilities.

A. The dark fiber – interoffice facilities cost study results, narrative and workpapers are behind the tab named Dark Fiber. A full description is contained in that documentation and I will summarize here. The cost of fiber cable was developed in SLCM using the same inputs as described for all previously described unbundled loop types. The dark fiber documentation and SLCM documentation describe the SLCM network design and model calculations created for this purpose.

The first step in the dark fiber – interoffice facilities cost study was to analyze Sprint's Florida-specific interoffice transport routes to determine the number of fiber strands required to provide the bandwidth requirements on any given route. A minimum fiber cable size of 36 fibers was assumed based on Sprint's network planning practices.

Using actual DS-3 demand as inputs to SLCM, the number of lit fiber strands necessary to meet that route's bandwidth requirements is determined. At this point, the fiber cable strands for interexchange bandwidth requirements is added in SLCM. The IX fiber routes follow existing DLC fiber feeder and DS-3 fiber distribution to the full extent possible so as to result in maximum degree of cable structure sharing between loop and interoffice facilities. These calculations are performed for each wire center to determine a statewide weighted average of interoffice dark fiber costs.

Sub-Loop Elements

Q. How was the sub-loop cost study performed?

A. The sub–loop cost study results, narrative, and workpapers are found in loop documentation. A full description is contained in that documentation and I will summarize here. Given the infancy and uncertainty of sub-loop unbundling, Sprint proposes the sub-loop elements of feeder and distribution as the appropriate level of initial sub-loop unbundling. Should significant demand materialize for further unbundling it may be appropriate to establish even smaller sub-loop elements in the future. Due to still developing industry standards, practices and experience with sub-loop unbundling, it is not possible to predict the forward-looking costs of establishing ALEC interconnection to these sub-loop elements with any certainty. Therefore, the interconnection costs to access sub-loop elements should be handled on an individual case basis until such time as standard network arrangements, ordering and provisioning practices have developed.

The cost of the sub-loops' feeder and distribution is taken straight from the same SLCM runs used to generate the cost for all other unbundled loop types. The associated models, process and model inputs are the same as previously described.

Inside Wire

Q. How was the Inside Wire cost study performed?

A. The cost study results, narrative, and workpapers for unbundled inside wire is found under the tab Inside Wire. A full description is contained in that documentation and I will summarize here. The cost study accounts for two scenarios where Sprint might own inside wire. The scenarios include interbuilding cable, where the cable is part of a campus or office park and connects the buildings; and intrabuilding cable, which includes riser and plenum cable. Riser cable is the cable running vertically within a building and plenum cable runs horizontally within a building.

Given that the demand for inside wire as unbundled network element is unknown and the variability between locations where Sprint owns inside wire, Sprint developed building block costs for the elements associated with inside wire. The building block costs include per foot prices for various cable sizes and serving area interfaces. By location, a price will be built based on the amount of cable the ALEC wishes to purchase as a UNE.

Packet Switching

Q. Does Sprint's filing contain a cost study for unbundled packet switching?

A. No. Sprint's filing in this proceeding does not include a cost study or proposed rate for the packet switching unbundled element. Section

51.319(c)(3)(B) requires an incumbent LEC to provide unbundled packet switching only if the following conditions are satisfied:

> "(i) The incumbent LEC has deployed digital loop carrier systems, including but not limited to, integrated digital loop carrier or universal digital loop carrier systems; or has deployed any other system in which fiber optic facilities replace copper facilities in the distribution section (e.g., end office to remote terminal, pedestal or environmentally controlled vault);
>
> (ii) There are no spare copper loops capable of supporting the xDSL services the requesting carrier seeks to offer;
>
> (iii) The incumbent LEC has not permitted a requesting carrier to deploy a Digital Subscriber Line Access Multiplexer in the remote terminal, pedestal or environmentally controlled vault or other interconnection point, nor has the requesting carrier obtained a virtual collocation arrangement at these subloop interconnection points as defined by 51.319(b); and
>
> (iv) The incumbent LEC has deployed packet switching capability for its own use."

To date, Sprint has not deployed DSLAMs at its DLCs locations. Therefore, it cannot, and has no obligation under the FCC's rules, to provide packet switching as a UNE. When and if Sprint deploys a DSLAM at a DLC and the additional 3 criteria listed above are met, Sprint will develop and make

available to requesting carriers the packet switching unbundled network element.

Issue 12 - UNE Combinations

Without deciding the situations in which such combinations are required, what are the appropriate recurring and non-recurring rates for the following UNE combinations:

"UNE platform" consisting of: loop (all), local (including packet, where required) switching (with signaling), and dedicated and shared transport (through and including local termination);

UNE-P

Q. Please describe Sprint's cost study for combined loop, switch and transport (UNE-P).

A. Sprint's cost study, detailed narrative, and workpapers for UNE-P 2-wire loops and switch ports are found in the UNE-P section of the documentation. Sprint's UNE-P cost study reflects the network economies available through use of integrated DLC (IDLC) that is possible when loop and switch UNEs are sold on a combined basis. Sprint's UNE-P cost study adjustments reflecting the cost reducing effects of IDLC are explained in detail in the cost study narrative. The SLCM inputs are the same as for UNE 2-wire loop with the exception of the DLC inputs as mentioned above, and a second run of

SLCM was done solely for determining the cost of loops using IDLC. Sprint witness Mr. Cox addresses in his testimony the switch port cost reductions possible under an UNE-P arrangement. Mr. Davis addresses the non-recurring charge for switch translations work necessary to meet ALEC specific trunk routing requests.

The dedicated or common transport component of UNE-P is not reflected in Sprint's cost study output because it is not possible to predict where the ALEC will request its traffic to be routed (Sprint's dedicated transport cost study has approximately 500 point-to-point routes). However, both the dedicated transport and common transport UNE options are available as part of UNE-P and the cost of the transport ordered by the ALEC would simply be added to the cost of UNE-P in Sprint's cost study filing. The testimony of Mr. Davis addresses the non-recurring charges associated UNE-P.

UNE-P 2-Wire ISDN/ISDL

Q. Are there similar adjustments needed to reflect the cost of combined 2-wire ISDN loops and switch ports?

A. Yes. The integrated GR303 switch and DLC network configuration that yields cost savings for combined POTS loop and switch ports are available for ISDN-BRI. An additional ISDN-BRI loop and port combination is also provided. IDSL is a non-switched service and therefore UNE-P is not applicable.

Enhanced Extended Link (EEL)

Q. Please describe Sprint's cost study for Enhanced Extended Link (EEL).

A. Sprint's cost study, detailed narrative and associated workpapers for EEL are found under the tab named EEL. Depending on the transport routes requested by the ALEC, there are hundreds of possible combinations of loop and transport routes possible. Sprint has not attempted to list all of these possible combinations, but has simply shown the additional costs for multiplexing equipment that are needed for DS-0 to DS-1 and DS-1 to DS-3 EEL combinations in the EEL Monthly Recurring Charges table. The development of these simple multiplexing cost additives is provided in the cost study filing along with illustrative drawings and descriptions. Mr. Davis' testimony addresses any applicable non-recurring charges associated with EELs.

Q. Does this conclude your testimony?

A. Yes.

NOTE: Pages 99 and 100 were reserved for prefiled testimony, but were not needed. Transcript continues in sequence on page 101.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

SURREBUTTAL TESTIMONY

OF

Kent W. Dickerson

Q. Please state your name, business address, employer and current position.

A. My name is Kent W. Dickerson. My business address is 6450 Sprint Parkway, Overland Park, KS 66251. I am employed as Director – Cost Support for Sprint/United Management Company.

Q. Are you the same Kent W. Dickerson who filed direct testimony in this case?

A. Yes.

Q. What is the purpose of your Surrebuttal Testimony?

A. The purpose of my testimony is to address on behalf of Sprint-Florida, Inc. ("Sprint") several issues raised by KMC witness Frank W. Wood.

Q. Does Mr. Wood's testimony contain any specific comments or analysis of Sprint's cost study filings?

A. No, it does not. Mr. Wood acknowledges he is neither an economist nor a cost study expert and has not examined Sprint's cost studies or related testimony. However, Mr. Wood goes on to express his general concern that the UNE prices should be set at a level " ... that makes them affordable to use.", and tells the Commission " you cannot end up with UNE prices that are above ILEC retail rates." Sprint witness Mr. Hunsucker, will respond to these claims. I will address Mr. Wood's broad comments regarding Sprint's UNE prices versus those of BellSouth's as well as his mis-understanding of unbundled DS1 loops and prices.

Q. In his testimony at page 3, Mr. Wood implores the Commission "Use your Staff. Turn them loose on the Sprint and Verizon cost studies, and let them dig into them and give them the independent review the studies require and this industry need." How do you respond?

A. The Commission Staff was already well in full motion, prior to Mr. Wood's rebuttal testimony. Sprint's cost study filing consisted of an extensive three volume set of testimony, model documentation and description, cost study narratives, inputs and outputs and supporting workpapers. Sprint consistently strives to distinguish its filings with this approach of providing a comprehensive and complete cost study filing, in a long held belief that using verifiable facts

and relevant data are the best independent means of determining UNE costs. These materials are wholly consistent with previous Sprint filings, which the Commission Staff has previously reviewed thoroughly.

Further, a publicly noticed workshop was held on August 31, 2001 to ensure the Commission Staff and any other interested parties could conduct a thorough analysis of Sprint's cost studies, wherein, Sprint provided an overview of its cost models and methodology. Finally, the Commission Staff has issued some 200 plus interrogatories (many consisting of multiple part questions) and 51 production of document requests further evidencing the extent of their review. Sprint welcomes a complete and balanced analysis of its cost studies, and is confident the extensive data supporting its filed UNE rates demonstrate an adherence to TELRIC UNE pricing principles.

Q. At page 19 of his testimony Mr. Wood expresses concern that Sprint's UNE prices are higher than those advocated for BellSouth. Please respond.

A. Given the dramatic differences in scale and geographic markets served both nationally and within Florida, it is to be expected that both BellSouth and Verizon would experience lower UNE costs than Sprint. Verizon serves some 61.6 million access lines nationally, BellSouth serves 25.4 million and Sprint serves 8.2 million. The eightfold and threefold overall scale advantage of Verizon and BellSouth compared to Sprint should unquestionably lead to lower

vendor material prices for Verizon and BellSouth. BellSouth's threefold size advantage also extends to Florida where they serve close to 7 million access lines compared to some 2 million for Sprint. Further, BellSouth's serving area in Florida is much more urban in nature resulting in much greater customer densities leading to lower unit costs. This reality is easily demonstrated in the data graphed in the attached exhibit, Exhibit KWD-4.

As this exhibit shows, approximately 65% of BellSouth's customers reside in the top two urban density groupings compared with only 25% for Sprint. Conversely, the lowest two customer density groupings contain 25% of Sprint's Florida customers compared with only 7% for BellSouth. It is a well understood reality that higher customer densities result in lower per unit capital costs and lower per unit maintenance expenses. Thus, both BellSouth's three-fold national and Florida's scale advantage, as well as a more dense urban serving area, all logically suggest lower unit costs for BellSouth when compared to Sprint. Based on the foregoing, it would be unreasonable to expect any other outcome other than for Sprint's UNE costs to exceed those of BellSouth's.

Q. At page 9 of his testimony Mr. Wood estimates KMC Telecom III's cost to construct distribution laterals from existing fiber rings to potential customer sites at $50,000. How does this compare with Sprint's cost analysis?

A. It validates Sprint's cost analysis. At page 7, Mr. Wood explains that KMC has constructed 32 laterals extending off of its 45 mile fiber rings in Tallahassee to serve either IXCs or commercial and government customers. He also explains that KMC has some 3.6 million DS-0 equivalent lines serving 15,301 customers for an average of 235 DS-0 equivalents per customer. Thus, when comparing KMC's estimated $50,000 construction cost for distribution lateral, it is logical to compare that cost to the estimated costs for Sprint to serve DS-3 customer locations within the Tallahassee exchange. The capital cost for constructing a distribution lateral for the Sprint served DS-3 customer locations was estimated in Sprint's UNE filing at $45,277. Thus, Mr. Wood's testimony regarding KMC's cost experiences in Tallahassee provides further validation as to the reasonableness of Sprint's proposed UNE loop costs.

Q. On page 20 of his testimony, Mr. Wood expresses concern with Sprint's UNE DS-1 prices and describes a UNE DS-1 as follows: "The ILEC simply uses two pairs of copper for the loop, and installs a 'smart jack' at the customer premise[sic]. It is our opinion that a UNE DS-1 should generally cost no more than two UNE DS-0s." Is Mr. Woods understanding of a UNE DS-1 and the costs contained in Sprint's UNE DS-1 price correct?

A. No. Mr. Wood's understanding of a UNE DS-1 is mistaken. Sprint offers UNE DS-1 loops pursuant to the FCC's UNE orders. Accordingly, Sprint's UNE DS-

1 price reflects not only the cost of the copper pairs, but also the cost of the electronics necessary to provision a UNE DS-1. The cost study diagrams, narratives, and workpapers contained in Sprint's filing volumes describe the HDSL electronics used in conjunction with a 4-wire loop as the most efficient means of provisioning a UNE DS-1. Mr. Wood's characterization of a UNE DS-1 ignores the cost of the necessary electronics.

Mr. Wood's description of a UNE DS-1 is actually the description of a UNE 4-wire loop for which Sprint has provided the much lower prices that follow: Rate Band 1 - $40.41, Rate Band 2 - $66.91, Rate Band 3 - $135.34. Consistent with the FCC order defining NIDs as separate UNEs Sprint has also priced Smartjacks as standalone UNEs at $8.86 per month. Thus, CLECs can purchase either, UNE 4-wire loops and self- provision the electronics necessary for DS1 bandwidth or they can purchase a UNE DS1 complete with electronics at an understandably higher cost.

Q. Does this conclude your testimony?

A. Yes.

MR. FONS: Next we have the direct and rebuttal testimony of Brian K Staihr. Mr. Staihr had 28 pages of direct testimony and 13 pages of rebuttal testimony. And Sprint would ask that the direct and rebuttal testimony of Brian Staihr be inserted in the record as though read.

CHAIRMAN JABER: The direct and rebuttal testimony of Brian K. Staihr shall be inserted into the record as though read.

MR. FONS: Mr. Staihr's direct testimony had 11 exhibits, BKS-1 through 11. We would ask that that be marked as a composite exhibit, please.

CHAIRMAN JABER: Okay. BKS-1 through BKS-11 are marked as Composite Exhibit 4. And composite Exhibit 4 is admitted into the record.

MR. FONS: Attached to Mr. Staihr's rebuttal testimony were two exhibits, BKS-1 and BKS-2 Rebuttal. We would ask that those be marked as Composite Exhibit 5, please.

CHAIRMAN JABER: BKS-1 -- Staff, those aren't listed on the prehearing order. Everyone has them though? Oh, there they are. Page 76, Commissioners. BKS-1 and BKS-2 Rebuttal are identified as Composite Exhibit 5. And Composite Exhibit 5 is admitted into the record.

(Composite Exhibits 4 and 5 marked for identification and admitted into the record.)

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DIRECT TESTIMONY

OF

BRIAN K. STAIHR

Please state your name, title, and business address.

My name is Brian K. Staihr. I am employed by Sprint/United Management Company as Senior Regulatory Economist in the Department of Policy and Regulatory Affairs. My business address is 6360 Sprint Parkway, Overland Park, Kansas 66251.

Please briefly describe your educational background and work experience.

I hold a B.A. in Economics from the University of Missouri-Kansas City, and an M.A. and Ph.D. in Economics from Washington University in St. Louis. My field of specialization is Industrial Organization, including Regulation.

I have been a part of Sprint's Regulatory Policy Group since 1996. In my current position I am involved with the development of state and federal regulatory and legislative policy for all divisions of Sprint. I am also involved with the coordination of policy across business units. My particular responsibilities

include 1) ensuring that Sprint's policies are based on sound economic reasoning, 2) undertaking or directing economic/quantitative analysis to provide support for Sprint's policies, and 3) conducting original research. The specific policy issues that I address include universal service, pricing, costing (including cost of capital), access reform, reciprocal compensation and interconnection, local competition, and more.

In my position I have appeared before the Florida Public Service Commission, the New Jersey Board of Public Utilities, the Pennsylvania Public Utility Commission, the North Carolina Public Utilities Commission, the Public Service Commission of South Carolina, the Public Service Commission of Nevada, the Texas Public Utilities Commission, the Missouri Public Service Commission, the Kansas Corporation Commission, and the Illinois Public Service Commission. I have also worked extensively with the Federal Communication Commission's staff and presented original research to the FCC.

[In January 2000 I left Sprint temporarily to serve as Senior Economist for the Federal Reserve Bank of Kansas City. There I was an active participant in the Federal Open Market Committee process, the process by which the Federal Reserve sets certain interest rates. In addition, I conducted original research on telecommunication issues and the effects of deregulation. I returned to Sprint in December 2000.]

Currently, I also serve as Adjunct Professor of Economics at Avila College in Kansas City, Missouri. There I teach both graduate and undergraduate level courses.

Prior to my work in Sprint's Regulatory Policy Group I served as Manager-Consumer Demand Forecasting in Sprint's Local Division Marketing department. There I was responsible for forecasting the demand for services in the local market, and producing economic and quantitative analysis for business cases, opportunity analyses, etc.

What is the purpose of your testimony?

In my testimony I put forth the position of Sprint-Florida, Inc. ("Sprint") regarding the correct cost of capital to be used in calculating forward-looking economic costs for Sprint. My testimony supports the appropriateness of Sprint witness Dickerson's use of 12.26% as the weighted average cost of capital in determining the annual charge factor, which is used in the forward-looking cost studies for unbundled network elements in this proceeding.

What is Sprint's position concerning the cost of capital that should be used for this proceeding?

Sprint's position is consistent with Section 252 (d) (1) of the Telecommunications Act of 1996 (Act) which explicitly states that rates for interconnection and access to unbundled network elements "may include a reasonable profit." It is also consistent with the FCC's interconnection order (First Report and Order in CC Docket Nos. 96-98 and 96-195, released August 8, 1996) which states that the concept of reasonable or "normal" profit is embodied in forward-looking costs, because the forward-looking direct cost of a network element includes "the forward-looking costs of capital (debt and equity) needed to support investments required to produce a given element" (paragraph 691). Furthermore, the order states that the forward-looking cost of capital "is equal to a normal profit" (paragraph 700). Sprint's position is that the Commission should accept the use of the forward-looking, weighted, market value cost of capital of 12.26%, based on the market value capital structure shown below, used by witness Dickerson in Florida's forward-looking cost studies.

How does Sprint define a forward-looking cost of capital?

A forward-looking cost of capital, as opposed to an embedded or historical cost of capital, incorporates market-based values, as opposed to book values, in both its cost estimates and its capital structure. In the same way that a forward-looking cost study avoids the use of embedded or accounting costs for determining outside plant investment or overhead expenses, a forward-looking cost of capital avoids the use of embedded (book) values for costs of debt, costs

of equity, and capital structure. For example, the forward-looking cost of debt is the rate at which new debt could be issued in today's debt market, under existing market conditions. In contrast, the embedded cost of debt is the rate at which existing debt was issued in the past, and it reflects historical market conditions. The embedded cost of debt has no place in a forward-looking cost of capital calculation, or a forward looking cost study. Of course, this does not suggest that actual information should not be used in the process of calculating the forward-looking cost of capital. Rather, existing information should be used in the correct context to obtain the best estimate of a forward looking cost of capital that reflects investors' expectations today.

Is that definition consistent with other cost of capital testimony that has been presented recently to the FPSC?

Yes. Mr. Gregory Jacobson, on behalf of (what was then) GTE Florida Inc. testified on May 1, 2000 that, "to provide correct incentives for entry into local markets" the FPSC must use a forward-looking definition of the cost of capital which "differs from the "traditional"—and now outmoded—regulatory view" of using embedded costs, book values and historical risk.[1] Also at that time Dr. Randall Billingsley, on behalf of BellSouth Telecommunications, Inc. testified that for a forward-looking cost of capital, "Market values should be used exclusively

[1] Direct testimony of Mr. Gregory Jacobson, pp. 5-6, Docket No. 990649-TP.

because they are dynamically determined in the marketplace by investors, while book values are the result of historical accounting practices."[2]

Have any state commissions agreed with Sprint's definition of forward-looking, in terms of a cost of capital that rejects book values and utilizes market values?

Yes. As far back as 1996 the Massachusetts Department of Telecommunications and Energy (at that time known as the Department of Public Utilities, D.P.U.) ruled that "it would be inconsistent to use forward-looking competitive assumptions in the investment and expense components of a TELRIC study, but historical accounting-based capital structures in the cost of capital component."[3]

More recently, on August 8, 2000 the Nevada Public Service Commission issued a Modified Final Order in Docket No. 98-6004 addressing the cost of unbundled network elements. In that Order, the Commission stated that it was in the public interest to consider economic, forward-looking factors in evaluating and setting the cost of capital for Nevada Bell. The Order states,

"As such, the Commission rejects near-term dividend growth analyses, embedded book value capital structures, and embedded costs of debt...as vestiges of traditional ratemaking; and accepts earnings growth analyses,

[2] Direct testimony of Dr. Randall Billingsley, pp. 30-31, Docket No. 990649-TP.
[3] Massachusetts D.P.U. Phase 4 Order, Docket 96-73/74, 96-75, 96-80/81, 96-83, 96-94-Phase 4, released December 4, 1996, p.51.

market-value capital structures, and the market value of debt as the proper forward-looking components of the cost of capital for setting UNE prices."[4]

RISK

Please explain briefly Sprint's position regarding the relationship between cost of capital and risk.

The weighted, average cost of capital is the sum of the components of investor-supplied capital, weighted by each component's relative proportion. The components include debt and equity. Investors supply this capital with the expectation of receiving a return on their investment, and the magnitude of that expected return is based on the risk of the investment relative to the risks of other potential investments. In general, investors are risk averse and all else held equal, the greater the risk, the greater the expected return that investors will require. A firm that seeks investor capital must meet the return requirements that investors possess after having examined alternative investments of comparable risk.

Exactly what risk is reflected in Sprint's proposed cost of capital in this proceeding?

[4] Modified Final Order, Docket No. 98-6004, Public Utilities Commission of Nevada, August 8, 2000, p.9.

In a statistical sense, risk is the likelihood that an actual return will differ from an expected return. Assets that are often referred to as "risk-free" are so named because the likelihood that an investor's actual return will differ from his or her expected return approaches zero. For other assets, the likelihood that a return will differ from an expected return is non-zero, and that likelihood may be affected by both financial risk and business risk. Put simply, financial risk involves relative amounts of debt as well as a firm's capacity to service that debt. Business risk involves variability of a firm's inflow of revenue and the operating return on a firm's assets. The forward-looking cost of capital to be used in the calculation of unbundled network element costs must reflect the risks associated with investing in a local provider doing business in a competitive market, which in turn reflect the risks that the company faces while operating in that market. Sprint's recommended weighted average cost of capital of 12.26 accurately reflects this level of risk.

CAPITAL STRUCTURE

What capital structure does Sprint recommend for use in calculating the cost of capital in this proceeding?

Sprint recommends a market-based capital structure of 84.02% equity and 15.98% debt.

What is the process by which this capital structure is determined?

The process begins with Sprint's book value capital structure, as shown in Exhibit BKS-1. This is obtained using historical accounting values taken from Sprint's own records. First, the book value of debt is converted to a market value using prices of debt instruments as of July 2001 taken from Bloomberg Financial Services. Next, market-to-book ratios for common equity are calculated for a group of select firms that have been determined to be comparable in risk to Sprint. (The process of identifying these firms is discussed below.) These ratios are shown in Exhibit BKS-4. Using these ratios the book value of common equity is converted to a market value. Finally, using both the market value of equity and the market value of debt, an appropriate market value capital structure ratio is produced. This is shown in Exhibit BKS-3. As a check on reasonableness, Sprint's estimated market value of $4.55 billion translates to a per line value of approximately $2,152. That amount falls squarely in the range of $1,200 to $5,300 per access line paid in recent LEC/LEC acquisitions.

Is this capital structure relatively consistent with other forward-looking, market value-based capital structures recently presented to the FPSC?

Yes. According to Mr. Gregory Jacobson's testimony from May 1, 2000 the average telecommunications company at that time had a market-value capital

structure comprised of 81.1% equity and 18.9% debt.[5] Similarly, Dr. Randall Billingsley also testified on May 1, 2000 that a market-value capital structure of 90.17% equity and 9.83% debt was appropriate for Bell South.[6] Sprint's proposed capital structure falls squarely between the two. Mr. John Hirshleifer, testifying on behalf of AT&T Communications of the Southern States, Inc. and MCIWorldCom, Inc., on June 8, 2000 utilized a market-value capital structure of 84% equity and 16% debt in his calculations, which is extremely close to Sprint's proposed capital structure.[7]

COST OF DEBT

What is Sprint's position regarding the appropriate forward-looking cost of debt to be used in calculating the forward-looking cost of capital for this proceeding?

Sprint's forward-looking cost of debt as of July 2001 is 7.81%, as shown in Exhibit BKS-2. The figure represents the rate at which Sprint could issue debt in July 2001. The cost has three separate components. First, a forward-looking risk free rate of return of 6.00%, which is the return on twenty-year U.S. Treasury bonds implied by futures prices. This figure is described in more detail below in the Risk Premium portion of my testimony. Second, the credit spread for twenty-

[5] Direct testimony of Mr. Gregory Jacobson, p. 27, Docket No. 990649-TP.
[6] Direct testimony of Dr. Randall Billingsley, p. 30, Docket No. 990649-TP

year "A" rated telephone bonds over twenty year U.S. Treasury bonds, which is estimated at 173 basis points based on prevailing market data from Bloomberg Financial Markets. Third, an estimated issuance cost increment for twenty-year debt which is eight (8) basis points.

MARKET TRADED GROUP OF COMPARABLE FIRMS

What is Sprint's position regarding the proper estimation of a forward-looking cost of equity for Sprint?

Investors' required return on common equity forms the basis for estimating the cost of equity, and investors' required return is generally estimated with standard, market-based, forward-looking financial models. Sprint utilizes the discounted cash flow model (DCF) and risk premium model, both of which are market-based, forward-looking models, to estimate investors' required return on common equity. An appropriate issuance cost increment is added to this required return to produce the forward-looking cost of equity.

Are the DCF and risk premium models applied directly to Sprint?

[7] It should be noted that although Mr. Hirshleifer utilized this market-value capital structure, he recommended use of a combination of market value and book value capital structures. Direct testimony of Mr. John Hirshleifer, p. 36, Docket No. 990649-TP.

No. Using market-based models requires the use of stock market prices, and Sprint does not have stock that is traded on a stock market as a separate entity. Therefore, there is no way to directly observe the value that investors would place on it, and so market-based models cannot be applied directly to Sprint. Instead, a group of market-traded companies is identified that, on average, are comparable in risk to Sprint and the DCF and Risk Premium models are applied to that group.

How is this group of comparable-risk, market-traded companies identified?

It is a basic tenet of finance theory that investors' required returns, and the cost of common equity that reflects those returns, are a function of risk. No single, precise formula exists to directly measure risk, but various risk measures can be used to estimate general (and comparable) risk levels. Sprint utilizes four specific risk measures to obtain its group of comparable risk firms: the common equity ratio, the cash-flow-to-capital ratio, the pre-tax fixed charge coverage ratio, and the revenues-to-net plant ratio. These risk measurements capture both financial risk and business risk. They are used as inputs to cluster analysis, which identifies a group of twenty market-based firms that, on average, have risk comparable to the risk measures of Sprint.

Please briefly describe how the four measures reflect relative risk levels.

The common equity ratio reflects financial risk by measuring the amount of a firm's financial leverage. The ratio is simply the percentage of total capital supplied by common stockholders, as opposed to preferred stockholders and debt holders. All else held equal, the higher the common equity ratio, the lower the risk to the investor.

The cash-flow-to-capital ratio reflects both business risk and financial risk. It provides information regarding the adequacy of cash flow to the providers of capital. This ratio demonstrates the quality of reported earnings levels. All else held equal, the higher the cash-flow-to-capital ratio, the lower the risk to the investor.

The pre-tax fixed charge coverage ratio reflects both business risk and financial risk by indicating the adequacy of earnings levels. The ratio indicates the number of times (in terms of a multiple) that fixed charges, including interest and preferred dividends, are earned. All else held equal, the higher the pre-tax fixed charge coverage ratio, the lower the risk to the investor.

Finally, the revenues-to-net plant ratio reflects business risk by measuring the ability to generate revenues from fixed assets. The ratio indicates net plant turnover and the degree to which resources are employed to generate revenues. All else held equal, the higher the revenues-to-net plant ratio, the lower the risk to the investor.

Please describe the cluster analysis that uses these measures.

Cluster analysis is a statistical technique used to classify objects, people, or, in this case, firms into categories based on similarity of characteristics. In this instance, cluster analysis is used to narrow a large universe of firms down to a specific, relatively small group of firms that comes closest to exhibiting the targeted characteristic (risk) of single firm, Sprint.

Sprint starts its cluster analysis with all firms available from Standard and Poor's Research Insight. Firms are eliminated if they are not market-traded, if they are not U.S. based, if they do not pay dividends, or if there is insufficient data available to calculate risk measures or required return on common equity. For this proceeding, six hundred and twenty-one were identified as meeting the criteria. The risk measures were obtained for these firms, and then standardized. The cluster analysis calculates the cumulative distance between each firm's standardized risk measures and Sprint's standardized risk measures, and identifies the firms having the shortest distance. The final group is made up of the twenty companies whose risk measures cluster around, or are literally closest to, the risk measures for Sprint.

How do Sprint's risk measures compare to those of the select group of firms?

The comparable group of twenty companies, and the risk measures for each, are shown in Exhibit BKS-5, as are the risk measures for Sprint. The common equity ratios are determined as of March 31, 2001. The other three risk measures are average risk measures for 1999 and 2000. A two-year time period is used because Sprint feels that it is necessary to examine cash flow, earnings, and revenue-based risk measures over a period of time long enough to avoid possible aberrations but short enough to be relatively current.

Because the required returns on common equity for the group will be averaged, the proper comparison is between Sprint's risk measures and the group's average, rather than between Sprint and any single firm in the group. Sprint's equity ratio is 58.7%, compared to the group average of 59%. Sprint's cash-flow-to-capital ratio is 41.8%, compared to the group average of 38.1%. Sprint's pre-tax fixed charge coverage ratio is 8.39 times, compared to the group average of 7.28 times. And Sprint's revenues-to-net plant ratio is 77.5%, compared to the group average of 171.3%. When making these comparisons, it is important to understand that the goal of the cluster analysis is to obtain a group of firm's whose combined, cumulative data (in this case, risk) comes closest to the data of the target firm, Sprint.

Why does Sprint not limit the universe of market-traded firms for the cluster analysis to only those firms operating in the telecommunications industry?

Because of changes occurring within the industry—mergers, acquisitions, diversification and bundling—the number of market-traded firms that primarily provide LEC-type services is falling, and the number of telecom firms that are purely representative of the ILEC business is dwindling. As such, it is no longer appropriate to assume that companies involved in providing telecommunications services are generally facing the same types of business risk as those faced by Sprint.

Then why not use, as a comparable group of firms, publicly traded companies where a majority of revenues comes from LEC-type services?

While that approach might be superficially appealing, it is based on a fallacious and foundationless notion that firms that operate in the same industry, or "do the same thing", automatically exhibit the same risk characteristics. Plainly speaking, there is no reason to assume that just because two firms provide the same type of service they therefore face the same business risk and represent the same investment risk to investors. If that were true, we would not observe situations where one firm succeeds in an industry while a similar, competing firm fails. Sprint's approach to identifying comparable-risk firms uses analysis applied

to data that is measurable, objective, and verifiable to determine comparable risk. There are no assumptions involved. But choosing comparable firms from the same industry simply because they do operate in the same industry is an approach that is based solely on assumption.

DISCOUNTED CASH FLOW (DCF) ANALYSIS

Please describe the DCF approach used by Sprint in determining the required return on common equity.

The DCF model is a straightforward method of calculating an investor's required return on common equity. It reflects this required return because investors' consensus risk analysis, which forms the basis for the required return, is embodied in the market price of any stock. The DCF model is market-based, and it is forward-looking. It implies that an asset's value is the expected cash flow generated by the asset, discounted by the investor's required return. In other words, the market value of common stock equals the present value of the expected stream of future dividends. Exhibit BKS-7 shows the general form of the DCF model and, in Equation (5), the quarterly required return on common equity for companies that pay dividends quarterly. The corresponding annual return is shown in Equation (8). This version of the DCF model is sometimes referred to as a quarterly DCF model. Sprint's use of quarterly DCF model does not indicate or imply that dividends are expected to increase quarterly. Rather, it

reflects the reality that quarterly dividends are expected to increase annually at a rate equal to the average compounded quarterly growth rate.

How does Sprint determine the current dividend yield for the companies in the comparable-risk group?

The current market value of a stock, as determined by investors based on all available information, is reflected in the stock's current price. But a change in the market price does not necessarily imply a change in the required return on common equity. Rather, a price change may simply reflect an adjustment of investors' beliefs regarding a growth rate or expected dividends. When the DCF model is used to estimate the required return on common equity it is important to determine the current dividend yield and the expected growth rate simultaneously. If an outdated, averaged, historical stock price is combined with current growth expectations, or an updated price is combined with past growth expectations, the model's results can be biased. The same holds for using past growth expectations along with historical average stock prices. For each firm in the comparable group Sprint uses the most recent quarterly dividend and the average closing stock market price from June 25, 2001 through July 9, 2001. A two-week time period is current enough to avoid the biases associated with historical, outdated stock prices and corresponds to the time period of growth rate determination. The quarterly dividend yields are presented in Exhibit BKS-6.

How does Sprint determine the expected growth rate for the companies in the comparable-risk group?

DCF models require a growth rate that reflects the long run dividend growth rate expected by investors. Although current market prices reflect market-consensus expectations regarding value, there is no specific method to directly measure market consensus on expected long run growth rates. So it becomes necessary to estimate expected long run dividend growth rates, and there are a number of approaches to doing this. For its DCF model Sprint uses the Institutional Brokers Estimate System (I/B/E/S) consensus analysts growth rate estimates. I/B/E/S is an investment research service of I/B/E/S, Inc., and is an often cited, objective source of analysts forecast data. I/B/E/S produces the consensus earnings growth expectations of financial analysts from research departments of investment brokerage firms, in summary form, every month. I/B/E/S growth rates are forward-looking, expectation-based estimates of earnings growth.

The five-year average I/B/E/S earnings per share growth rates for the companies in the comparable risk group are shown in Exhibit BKS-6. These growth rates are the most recently available at the time this analysis was conducted. For the group of comparable firms there is an average of seven (7) analysts' estimates per company used to develop the consensus growth rate.

What is the relationship between dividend growth and earnings growth, as estimated by I/B/E/S?

The expected growth in dividends is a function of the expected growth in earnings. In the short run, it is certainly possible that dividends may grow at a rate that is greater or less than earnings growth. One can observe this potential short run divergence in companies that maintain a relatively stable dividend policy despite greatly fluctuating earnings. But in the long run, dividends and earnings must grow at the same rate. Any firm that increased dividends at a higher rate than earnings would, in the long run, eventually pay out more than it earns. So long run dividend growth cannot be maintained without underlying long term earnings growth, and since the DCF model is reflective of long term expectations, it is the long run relationship between dividends and earnings that matters most.

What is the average required return on common equity for the comparable-risk group based on Sprint's DCF analysis?

The average required return on common equity, as shown in Exhibit BKS-6, for the comparable group based on Sprint's DCF analysis, is 13.71%.

RISK PREMIUM ANALYSIS

Please describe the risk premium analysis that Sprint uses to determine the required return on common equity.

The risk premium approach is based on the well-known relationship between risk and return of market-traded securities that I initially referenced on page 6 of this testimony. Sprint uses a form of the risk premium approach known as the Capital Asset Pricing Model (CAPM). The CAPM is based on the theory that the required return for a given security is equal to the return on a risk-free asset plus a risk premium. It is consistent with the belief that investors tend to be risk averse and that, all else held equal, if an investor faces the choice of two assets providing the same expected return, the investor will choose that asset that offers the least risk. And if an investor chooses a riskier asset over a less-risky asset, it is generally because the expected return on the risky asset is higher.

A standard specification of the CAPM is:

$$R_j = R_f + B_j * (R_m - R_f)$$

Where...

R_j = the required return on stock j

R_f = the risk free return

R_m = the required return on the market portfolio, and

B_j = the measure of risk for stock j.

In order to use this model to obtain a required return on any stock, it is necessary to determine the risk-free return, the market risk premium (which is the difference

between the required return on the market portfolio and the risk free return, $R_m - R_f$), and the appropriate company-specific risk measure, or beta, B_j. The risk-free return is generally observable, but the market risk premium and the company-specific risk measure, or beta, must be estimated.

What does Sprint use as the risk-free return?

Sprint uses the 6.00% average interest rate implied by the prices of U.S. Treasury bond futures contracts for delivery during the period September 2001 through June 2002 as traded on the Chicago Board of Trade from June 25 through July 9, 2001. These are shown in Exhibit BKS-8. Generally, these rates implied by the prices on the futures contracts represent forward-looking assessments made by the market of the risk-free return in the near-term future. As such, they are more in keeping with the forward-looking nature of Sprint's cost estimation than the use of current rates would be.

Why does Sprint use Treasury bonds when measuring the risk-free rate of return as opposed to U.S. Treasury bills?

It is simply a question of choosing a security that has a duration, or maturity period at issuance, that is most similar to common equity. U.S. Treasury bills have a maturity period at issuance that ranges from 3 months to 1 year, while U.S. Treasury bonds are used for longer-term financing. U.S. Treasury bonds

have maturity periods at issuance over fifteen years, often twenty or thirty years. Because common equity has a long-term time horizon, or the equivalent of an infinite maturity period, it makes sense to use bonds rather than bills since they are closer to matching the duration of common equity. In addition, the market risk premium used by Sprint utilizes long-term government bonds in its calculation, not shorter-term instruments.

What does Sprint use as the market risk premium?

Sprint bases its market risk premium on data from the Roger G. Ibbotson series of risk premium studies, specifically the 2001 Stocks, Bonds, Bills and Inflation Classic Edition Yearbook.[8] Sprint uses a risk premium of 7.27% which is the risk premium of common stock returns over U.S. Treasury bond returns based on market results for 1926 through 2000, which is the entire period for which data is available.

Why does Sprint utilize the entire period?

It is a fact that different market risk premiums can be calculated by subjectively altering the time period over which the data is taken. For example, if Sprint used only the years 1995-1999 as the basis for its calculation the market risk premium would approach 20%. Conversely, if Sprint used only the years 1970-1980, the

[8] 2001 Stocks, Bonds, Bills and Inflation Classic Edition Yearbook; Chicago, Illinois: Ibbotson Associates, Inc., 2001.

market risk premium would be less than 5%. Using data from 1940 to the present produces a market risk premium of 7.84, which is relatively close to Sprint's proposed number. To eliminate the subjectivity that is associated with selecting one time period over another, and to capture the widest possible set of economic circumstances that can affect a market risk premium, Sprint believes it is most appropriate to utilize all data available. The 7.27% market risk premium and the 6.00% risk free return produce a current required return on a market portfolio of 13.27%.

As a test of reasonableness for the 13.27%, Sprint's conducts a DCF analysis on all 621 firms included in the original cluster analysis. Using the quarterly DCF model shown in Exhibit BKS-7, recent quarterly dividends and stock prices, and the I/B/E/S growth rates discussed above, the 621 dividend-paying firms produce an average required return of 15.08. This indicates that Sprint's required return on a market portfolio of 13.27%, obtained through the risk premium approach, is both appropriate and conservative.

What measure of risk is used to determine the risk premium for the comparable group of firms?

Sprint uses a beta as an objective measure of risk since betas are well established as objective measures of risk in a portfolio context. A beta equal to one (1) indicates that the risk associated with that asset is equal to the market

average risk level. And a beta greater than (lower than) one indicates a risk level greater than (lower than) the market average risk level. Sprint uses Value Line betas that are published in The Value Line Investment Survey Summary and Index dated July 13, 2001. The Value Line betas are computed using sixty months of weekly returns, using the New York Stock Exchange Composite Index as the market index. These betas for each company in the comparable risk group are shown in Exhibit BKS-9. The average comparable group beta is 0.86, and this is the beta value used in Sprint's risk premium analysis.

What is the average required return on common equity for the group of comparable risk firms based on Sprint's risk premium analysis?

As shown in Exhibit BKS-8, the required return on common equity for the group of comparable risk firms is 12.21%, based on risk premium analysis.

REQUIRED RETURN ON COMMON EQUITY & COST OF EQUITY

What is the required return on common equity for Sprint based on the two distinct market-based analyses?

Sprint's comparable risk group DCF analysis produces a required return on common equity of 13.71%. Sprint's comparable risk group risk premium analysis produces a required return on common equity of 12.21%.

Does this range represent the cost of common equity for Sprint?

Not exactly, because neither value includes an increment for issuance costs. To determine the cost of common equity, it is necessary to add an increment for issuance costs to the required return.

Why is an increment for issuance costs needed?

When a company raises equity capital it incurs costs of issuance—underwriting fees, legal costs, accounting costs, printing costs, and more. Sprint does not issue common stock directly to the public, but Sprint's parent company, Sprint Communications L.P., does issue common stock publicly. Because Sprint Communications L.P. raises equity capital for the benefit of its subsidiary entities, investors understand that issuance costs must be recovered and that the parent company's subsidiary entities, such as Sprint, will undertake and invest in projects that provide a return intended to cover these issuance costs. Exhibit BKS-10 shows the Sprint Communications L.P. common equity issues from 1967 through the present, and shows that the average issuance cost as a percent of net proceeds is 4.9%.

How does Sprint quantify the rate of return increment for these issuance costs?

The issuance cost increment can be quantified using a standard approach within the DCF model: the stock price component in the model should be reduced by 4.9%. Holding all other variables constant, this will produce an adjusted DCF result that is slightly higher than the original. The difference between these two DCF results represents the appropriate issuance cost increment. For Sprint Communications L.P. and its subsidiary entities, including Sprint, the proper issuance cost increment is currently fourteen (14) basis points. This increment is based on the 4.9% issuance cost ratio, the current Sprint FON group quarterly dividend of $0.125, the Sprint FON group stock price as of June 2001 of $21.29, and the I/B/E/S growth rate of 9.6%.

After incorporating the fourteen basis point issuance cost increment, what is Sprint's estimate for the cost of common equity for Sprint?

Sprint's estimate for the range of cost of common equity is 12.35% to 13.85%. It is Sprint's position that the midpoint of this range, 13.10%, represents the most appropriate forward-looking market based cost of common equity to be used in determining the forward-looking cost of capital in this proceeding.

RECOMMENDED COST OF CAPITAL

In summary, what is Sprint's recommendation concerning the cost of capital to be used in this proceeding for Sprint?

In keeping with the forward-looking nature of the costing methodology required for unbundled elements, Sprint strongly recommends reliance on the weighted market value cost of capital. The weighted-average cost of capital for Sprint is 12.26% based on the market value capital structure shown in Exhibit BKS-11 of 84.02% equity and 15.98% debt; the forward-looking market value cost of common equity of 13.10%; and the forward-looking market value cost of debt of 7.81%.

Does this conclude your testimony?

Yes it does.

SPRINT
DOCKET NO. 990649B-TP
FILED MARCH 18, 2002

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

REBUTTAL TESTIMONY

OF

BRIAN K. STAIHR

I. NAME, TITLE, PURPOSE

Q. Please state your name, title and business address.

A. My name is Brian K. Staihr. I am employed by Sprint as Regulatory Economist. My business address is 6450 Sprint Parkway, Overland Park, Kansas 66251.

Q. Are you the same Brian K. Staihr who filed direct testimony in this proceeding on November 7, 2001?

A. Yes.

Q. What is the purpose of your rebuttal testimony?

A. In my rebuttal testimony I respond to the direct testimonies, filed January 30, 2002, of Mr. David Draper on behalf of the Florida Public Service Commission Staff ("Staff") and Dr. George S. Ford on behalf of Z-Tel Communications, Incorporated ("Z-Tel"). In the pages below I comment on the recommended costs of capital contained in the testimonies of Mr. Draper and Dr. Ford, and point out the incorrect use of assumptions

and specific shortcomings and inconsistencies in the methods used. Finally, I make adjustments to certain parts of the methodology used by Mr. Draper, and demonstrate that by correcting his methodology, and by eliminating his improper assumptions, the cost of capital produced by his approach would approximate the cost of capital proposed by Sprint in this proceeding.

II. CORRESPONDING RISK

Q. Can you identify places in the testimony of Mr. Draper or Dr. Ford where each incorrectly bases his calculation methodology on assumption, rather than analysis?

A. Yes. When Mr. Draper and Dr. Ford both advocate the use of a group of telecom firms as a proxy for determining Sprint-Florida's required return, without an understanding as to whether the firms they've chosen represent appropriate and comparable levels of risk, they are basing their methodology on assumption, and not objective analysis. The long-establish legal standard for determining a cost of capital can be found in the often-cited Supreme Court decision FPC v. Hope Natural Gas Co., 320 U.S. 591, 603 (1944) ("Hope decision"), which states, *"the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks."* There are two distinct ways that we can identify enterprises having corresponding risks: we can measure risk, or we can make assumptions about risk. Both Mr. Draper and Dr. Ford choose the second; they assume that a certain group of firms have risk that corresponds to the risk of Sprint-

Florida. If either Mr. Draper or Dr. Ford were to actually *measure* risk, as Sprint's approach does, they would see that the firms they have chosen to produce a representative cost of equity (as inputs to DCF models and CAPM regressions) do *not* exhibit corresponding risk.

Q. Have you performed such a calculation?

A. Yes. In my direct testimony I described the four distinct measures of risk that Sprint uses as inputs to its cluster analysis to determine firms of corresponding risk. Simply stated, these four measures (common equity ratio, cash-flow-to-capital ratio, pre-tax fixed charge coverage ratio, revenues-to-net-plant ratio) are converted to a single composite measure for each company, and that single measure reflects how "far away" the company's risk measures are from Sprint-Florida's risk measures; the smaller the number, the closer that company is to being an "*enterprise having corresponding risk*" to Sprint-Florida. My exhibit, BKS-1, displays the measures for each company in Mr. Draper's group of firms, the measures for the group advocated by Dr. Ford, and for the group Sprint defined as comparable-risk firms. The average for each group is shown at the bottom of that exhibit.

As the exhibit shows, when risk is actually *measured* it is undeniable that the firms used by Sprint in its comparable-risk group are closest to being "enterprises having corresponding risk" as required by the Hope decision. Furthermore, it is worth noting that both Mr. Draper and Dr. Ford advocate the use of telecom firms when calculating

the cost of capital, and there are indeed telecom firm's in Sprint comparable group. But the critical difference is that those specific telecom firms are included not because it is *assumed* that they have corresponding risk (as Mr. Draper and Dr. Ford assume because they happen to be telecommunications-related enterprises), but because it has been *demonstrated* that they have similar risk; demonstrated using observable, empirical evidence.

Q. Is there other observable evidence that demonstrates lack of support for Mr. Draper's and Dr. Ford's assumption?

A. Yes. Simply looking at 52-week highs and lows of stock prices can illustrate the lack of support for the notion that firms that "do the same thing" exhibit the same risk to investors. As of the date of this writing, Bell South had a 52 week high- and low-stock price that ranged from 113% of its current price ($43.07/$38.26) to 95% of its current stock price ($36.26/$38.26). In comparison, Qwest had a 52 week high- and low-stock price that ranged from 442% of its current stock price ($41.83/$9.46) to 69% of its current stock price ($6.54/$9.46). As stated in my direct testimony, risk is the likelihood that an actual return will differ from an expected return. It is clear that each of these firms offered investors a very different likelihood that their actual return would vary from any expected return. No one could suggest that each represented the same risk to investors, despite the fact that they operate in the same industry.

III. COST OF EQUITY

Q. Aside from the use of assumptions, you mention inconsistencies with the methodology applied by Mr. Draper in his testimony. Please explain.

A. In calculating his two-stage discounted cash flow model Mr. Draper uses an "index" of firms which he believes represents a "well-managed company in the business of providing UNEs" (Draper page 2). However, in this index he includes two firms, AT&T and Telephone & Data, whose primary business activities have nothing to do with the provision of unbundled elements or even local telephone service. Telephone and Data derives 3/4ths of its revenues from wireless telecommunications, and while a minority of AT&T's revenues may indeed come from its offer of local telephone service in select parts of the country, its relationship with unbundled network elements is one of a purchaser, not a supplier. In any case, it is clear that for these two companies the collective data that Mr. Draper uses in his DCF model—dividend yields, stock prices, growth rates—does not represent a company primarily offering local telephone service and "in the business of providing UNEs". As stated above, Sprint believes that if data is to be used from other companies in calculating a cost of equity (and cost of capital) then the companies that are used should have proven, measurable corresponding risk. But if Mr. Draper chooses not to use objective measures of risk, and instead simply assumes corresponding risk based on what business activities a company pursues, then he should be consistent in his choice of companies that engage in the correct business activities. By his own criteria, AT&T and Telephone and Data do not belong in his "index".

Q. Have you reproduced Mr. Draper's results when these inappropriate companies are removed from the index?

A. Yes. I employed a two-stage DCF model consistent with Mr. Draper's chosen approach, the specification of which was…

$$P_0 = \sum_{t=1}^{4} \frac{D_t}{(1+r_E)^t} + \frac{D_5\left[\frac{1+g}{r_E - g}\right]}{(1+r_E)^5}$$

Solving this for r_E I was able to reproduce his original result using the data provided in his exhibits. I then repeated the calculation using a revised index which excluded the data from AT&T and Telephone and Data. The raw data can be seen in the attached exhibit, BKS-2. In that exhibit the top table reproduces portions of Mr. Draper's exhibit DJD-4. The last table shows the corrected input to the two-stage DCF model.

Q. What was the result of this corrected DCF model?

A. The corrected model produced a required return of approximately 13.5%. This is significantly higher than Mr. Draper's original suggested cost of equity of 11.45%. Furthermore, it is quite close to Sprint's proposed required return on equity, as calculated by its DCF model in my direct testimony, of 13.7%.

Q. Are there inconsistencies in Mr. Draper's other cost of equity calculation, using the Capital Asset Pricing Model (CAPM)?

A. Yes. With regard to Mr. Draper's CAPM calculation the problem is one of

A. Yes. With regard to Mr. Draper's CAPM calculation the problem is one of subjectively altering the raw data. In the process of calculating the required market return (R_m) Mr. Draper states that prior to calculating a DCF result for the market as a whole he removed companies with growth rates greater than 20% to get an "accurate representation of the market return" (Draper page 10). He did not provide any justification as to why he believed excluding these firms was appropriate.

Q. Why is it inappropriate to remove companies with growth rates greater than 20%?

A. Because the market return in the CAPM must reflect the *entire* market, not a pre-selected portion of the market that suits a particular purpose. By eliminating these firms Mr. Draper is not producing an "accurate representation" but rather a skewed, truncated version of a market return.

Q. What impact does excluding these firms have on the DCF results that entered Mr. Draper's CAPM as the required market return?

A. All else held equal, excluding these firms has the effect of lowering the required return, thereby lowering the cost of equity produced by his CAPM.

Q. Have you been able to quantify the effect of Mr. Draper's truncation of the data?

A. Somewhat. I performed a similar truncation of the data used in Sprint's original filing, to obtain a *relative* measure of the impact that such a truncation might have. As stated in my original testimony, Sprint conducted a DCF analysis for all 621 market-traded, dividend-paying firms in its original cluster analysis (Staihr Direct page 24). The results for these 621 firms serve as a proxy for the required return on a market overall. I repeated this analysis with a subset of firms, eliminating all firms with growth rates exceeding 20%, as Mr. Draper did. The effect was to reduce the average DCF result by approximately 0.9%.

Q. How would this affect Mr. Draper's CAPM result?

A. Mr. Draper's CAPM result was based on a market return of 10.87%. If we correct the market return, holding all else equal, we have the following…

Original Draper CAPM	5.4% + 1.02 * (10.87% - 5.4%) + .04% = 11.02%
Corrected Draper CAPM	5.4% + 1.02 * (11.77% - 5.4%) + .04% = 11.94%

This corrected Draper CAPM result is significantly closer to Sprint's corresponding CAPM result of 12.21%. Removing the .04 basis points adjustment for flotation costs (which Sprint adds to its 12.21) produces a corrected Draper CAPM result of approximately 11.9%.

Q. Given these corrections, how does Staff's proposed return on equity correspond to Sprint's proposal for return on equity?

A. The corrected Staff DCF result is 13.5%. The corrected Staff CAPM result is 11.94%. Both of these, correctly, include adjustments for flotation costs. The average of these two is 12.72%. By adding a 25 basis point adjustment as recommended by Mr. Draper on page 10 of his testimony I obtain a corrected forward-looking return on equity for Sprint of 12.97%. This is relatively close to Sprint's proposed forward-looking return on equity of 13.10% contained in my original direct testimony, and significantly higher than Staff's recommended 11.49% (11.24% Revised Draper Exhibit DJD-6 plus .25%, Draper Direct page 10).

IV. CAPITAL STRUCTURE

Q. Please comment on the capital structures used by Mr. Draper and Dr. Ford in their respective cost of capital calculations.

A. Both Dr. Ford and Mr. Draper incorrectly use a book-value based capital structure, rather than a market-value based capital structure, in calculating their costs of capital.

Q. Why is use of a book-value based capital structure incorrect in this instance?

A. Because, as Mr. Draper states on page 2 of his testimony, the FCC has mandated that "the forward-looking cost of capital shall be used" in calculating the cost of unbundled elements. The forward-looking cost of capital has (generally) three components: a forward-looking cost of debt, a forward-looking cost of equity, and a *forward-looking* capital structure. The FCC has explicitly stated *that "forward-looking costs simulate*

the conditions in a competitive marketplace."[1] This means the forward-looking cost of capital must represent the conditions in the competitive market for capital. And this means that market-values, not book-values, must be used as weights in calculating a competition-simulating, forward-looking weighted average cost of capital. As Dr. Michael Ehrhardt states in his book The Search for Value: Measuring the Company's Cost of Capital, "It may be tempting to use the balance sheet... to estimate the weights for the weighted average cost of capital, but it can lead to substantial mistakes...In summary, you should use market values when you estimate the weights for the components of your capital structure.".[2]

Echoing Dr. Ehrhardt's views, Dr. Shannon Pratt states in Cost of Capital: Estimation and Applications, "The critical point is that the relative weightings of debt and equity or other capital components are based on the market value of each component, not on the book value."[3] In short, if the weighted-average cost of capital is not based on market values in the capital structure it will not provide a competitive rate of return that is sufficient to attract investor capital, which is one of the requirements listed in the Supreme Court Hope decision referenced above and in the FCC's First Report and Order CC Docket 96-98 (footnote 1707).

Q. What is Mr. Draper's rationale for using a capital structure based on book values for his weighted average cost of capital?

[1] FCC's First Report and Order, CC Docket 96-98, released August 8, 1996.
[2] Pages 74-76, The Search for Value: Measuring the Company's Cost of Capital, Harvard Business School Press, 1994.

A. Mr. Draper provides no specific rationale. He states that the average book-value equity ratio of his index of firms is 63%, and seeks to validate that with another book-value equity ratio from the C.A. Turner utility report. He makes reference to reviewing several Commission Orders, and then recommends a "forward-looking" capital structure of 60% equity and 40% debt. Mr. Draper provides no explanation as to how this capital structure—based on historical accounting data—is supposed to be forward-looking as required by the FCC rules applicable to the costing of unbundled elements using TELRIC-based economic costs.

Q. How would Mr. Draper's weighted average cost of capital change if it incorporated a market-value based capital structure as the economists cited above (and Sprint) advocate?

A. It would change significantly. Using Mr. Draper's own price-to-book value ratio of 2.71 taken from his Value Line data (Draper Exhibit DJD-1), we can convert his 63% book-value equity weight (taken from his index) to a market-value weight if we assume the market value of debt does not vary significantly from the book value.[4] For simplicity, the table below shows the conversion based on a representative total investor capital amount of 100.

[3] Cost of Capital: Estimation and Applications; John Wiley & Sons, Publisher; 1998.
[4] This is a reasonable assumption. In Sprint's original filing the market value of debt and the book value of debt differed by less than two percent (2%). This is the figure used in the table below.

Book Value Equity	63
Book Value Debt	37
Total Book Value Investor Capital	100
Market to Book Ratio Equity	2.71
Market to Book Ratio Debt	1.02
Market Value Equity	(2.71) * (63) = 170.7
Market Value Debt	(1.02) * (37) = 37.7
Total Market Value Investor Capital	170.7 + 37.7 = 208.4
Market Value Equity Weight	(170.7 / 208.4) = 81.1%
Market Value Debt Weight	(37.7 / 208.4) = 18.9%

As the table shows, using Mr. Draper's own price-to-book value we obtain a capital structure of approximately 81% equity / 19% debt. This is relatively close to Sprint's proposed capital structure of approximately 84% equity and 16% debt. If we re-calculate the weighted average cost of capital by incorporating the appropriate market-value based capital structure and the corrected cost of equity (discussed above) we obtain an overall cost of capital relatively close to Sprint's proposed 12.26%. See table below.

	RoE	Weight	RoD	Weight	WACC
Staff Original	11.49%	.60	7.43%	.40	9.90%
Staff Corrected	12.97%	.81	7.43%	.19	11.92%
Sprint Original	13.10%	.84	7.81%	.16	12.26%

V. SUMMARY

Q. Please summarize your rebuttal testimony.

A. In the process of advocating specific weighted, average costs of capital to be used in this proceeding both Mr. Draper and Dr. Ford choose to make incorrect assumptions regarding what businesses have corresponding risk, rather than to actually determine the risk exhibited by various firms. Both Mr. Draper and Dr. Ford advocate the incorrect use of a book-value based capital structure, when the only type of capital structure that is consistent with the FCC's position regarding the proper estimation of a forward-looking cost of capital is a capital structure based on market values. Using his own criteria as a guide, Mr. Draper erroneously includes firms in his "index" that are not representative of the business currently at issue, and he incorrectly truncates the data used in his capital asset pricing model. By correcting these flaws, and by replacing assumptions with objective analysis regarding corresponding risk, I have shown that Staff's recommendation for a cost of capital to be used in the forward-looking cost estimation of unbundled elements approaches Sprint's original recommendation of 12.26. Mr. Draper has failed to produce persuasive arguments as to why a book value capital structure is appropriate, and as to why his (original) cost of equity is accurate.

Q. Does this conclude your rebuttal testimony?

A. Yes it does.

MR. FONS: Next we have the direct testimony of Talmage O. Cox, III, consisting of 33 pages, and we would ask that that direct testimony of Mr. Cox be inserted into the record as though read.

CHAIRMAN JABER: The prefiled direct testimony of Talmage O. Cox, III, shall be admitted into the record, inserted into the record as though read.

MR. FONS: There were no exhibits to Mr. Cox's testimony.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DIRECT TESTIMONY

OF

TALMAGE O. COX, III

Q. Please state your name, business address, employer and current position.

A. My name is Talmage O. Cox, III. My business address is 6360 Sprint Parkway, Overland Park, Kansas, 66251. I am employed as Senior Manager Network Costing for Sprint/United Management Company.

Q. What is your educational background?

A. I received an Associate in Arts Degree from National Business College, Roanoke, Virginia, in 1977 with a major in Business Administration -- Accounting. Subsequently, I received a Bachelor of Science Degree from Tusculum College – Greeneville, Tennessee, in 1986 with a major in Business Administration.

Q. What is your work experience?

A. I have worked for Sprint since 1978. Prior to my current position, I have held several positions with Sprint in costing. I developed cost studies and methodology associated with various services and special projects for

state jurisdictional filings in Tennessee and Virginia. While working in this position, I was the Telecordia Switching Cost Information System (SCIS) Administrator for ten years responsible for coordinating model questions with Telecordia and assisting other users when needed. For the past five years, in my current position I have primary responsibility for developing the costing methodology and the module for interoffice transport associated with Sprint's Unbundled Network Element (UNE) transport cost. In addition to transport, I also currently have responsibility for developing the costing methodology and the module for switching associated with Sprint's UNE switching cost.

Q. On whose behalf are you testifying?

A. I am testifying on behalf of Sprint-Florida, Inc. ("Sprint").

Q. Have you previously testified before other Public Utility Commissions?

A. Yes. I have previously testified before state regulatory commissions in Kansas and Texas.

Q. What is the purpose of your Testimony?

A. My testimony is two-fold:

First, I respond to the following issues:

Issues 7(o), 7(p), 7(r), 9(a)(13), 9(a)(15), and 9(a)(16).

Issue 7. What are the appropriate assumptions and inputs for the following items to be used in the forward-looking recurring UNE cost studies?

(o). switching networks and associated variables

(p). traffic data

(r). transport system costs and associated variables

Issue 9. (a) What are the appropriate recurring rates and non-recurring charges for each of the following UNEs?

(13). Circuit switching (where required)

(15). Shared interoffice transmission

(16). Dedicated interoffice facilities

My responses are from a perspective of how the underlying costs of the transport and switching related UNEs relate to specific issues raised in this docket. Sprint's witness Mr. Michael R. Hunsucker provides testimony regarding the appropriate method to develop the pricing of transport and switching. Sprint's witness Mr. Jimmy R. Davis provides testimony addressing the non-recurring charges associated with transport and switching.

Second, my testimony also supports Sprint's recurring cost studies associated with unbundled network elements in the following categories:

I. Transport

II. Switching

For purposes of clarity, I address each of the specific issues under the transport and switching categories. Unless otherwise identified, all non-recurring charges for the above are addressed by Sprint's witness, Mr. Jimmy R. Davis.

Q. Which portions of Sprint's cost study filing are you supporting?

A. In addition to my testimony, I support certain portions of Sprint's cost study. Exhibit KWD-3 to the testimony of Sprint witness, Mr. Kent W. Dickerson identifies the portions of Sprint's cost study filings that I support.

I. Transport

Q. How does the FCC define unbundled interoffice transmission facilities?

A. FCC Rule 51.319 (d) defines unbundled Interoffice Transmission Facilities "... as incumbent LEC transmission facilities dedicated to a particular customer or carrier, that provide telecommunications between wire centers owned by incumbent LECs or requesting telecommunications carriers, or between switches owned by incumbent LECs or requesting telecommunications carriers."

The unbundled Interoffice Transmission Facilities element, or simply "transport", is composed of the two basic network components: terminals

and fiber cable. Terminals are the equipment housed at the central office locations and serve as entry and exit points for telecommunications traffic to be moved between interoffice points in the network. In the majority of today's transport networks, and certainly in a forward-looking network, these interoffice terminals will be optically capable. Additionally, the fiber transport routes in a forward-looking network are constructed in ring design, which provides diverse routing capability in the event of a fiber cable cut, or terminal node failure. This forward-looking transport network design is commonly referred to as survivable SONET ring technology.

Q. What does the FCC 96-325 First Report and Order state regarding the unbundling of transmission facilities?

A. FCC 96-325, First Report and Order, Paragraph 440, states,

> "We require incumbent LECs to provide unbundled access to shared transmission facilities between end offices and the tandem switch. Further, incumbent LECs must provide unbundled access to dedicated transmission facilities between LEC central offices or between such offices and those of competing carriers. This includes, at a minimum, interoffice facilities between end offices and serving wire centers (SWCs), SWCs and IXC POPs, tandem switches and SWCs, end offices or tandems of the incumbent LEC, and the wire centers of incumbent LECs and requesting carriers. The incumbent LEC must also provide, to the

extent discussed below, all technically feasible transmission capabilities, such as DS1, DS3, and Optical Carrier levels (e.g. OC-3/12/48/96) that the competing provider could use to provide telecommunications services. We conclude that an incumbent LEC may not limit the facilities to which such interoffice facilities are connected, provided such interconnection is technically feasible, or the use of such facilities. In general, this means that incumbent LECs must provide interoffice facilities between wire centers owned by incumbent LECs or requesting carriers, or between switches owned by incumbent LECs or requesting carriers. For example, an interoffice facility could be used by a competitor to connect to the incumbent LEC's switch or to the competitor's collocated equipment."

Sprint's Transport Cost Module (TCM) was developed to determine the TELRIC of interoffice transport for DS0, DS1, DS3, OC3, and OC12 in support of unbundled elements.

(r) Transport System Costs and Associated Variables:

Q. What are the network components that Sprint includes in the development of transport system costs?

A. The development of interoffice transport system costs for UNEs should include all of the direct cost components required for the service to be fully functional. The transport system cost inputs should utilize/recognize the following items:

- Fiber optic cable
- Fiber tip cable
- Fiber patch panel
- Fiber optic terminals (OC-3, OC-12, and OC-48)
- OC-3 cards
- OC-12 cards
- DS-3 cards
- DS-1 cards
- Installation cost
- Capacity
- Utilization factors
- Pole and conduit factors
- Annual charge factors
- Aerial, buried, underground mix

All of these components are included in Sprint's transport costing process as shown in Volume I of Exhibit KWD-2, Section "Transport".

Q. Should traffic volume (Associated Variables) be considered in the development of transport costs?

A. Yes. The largest single determinant in the unit cost of a DS0, DS1, DS3, OC3 or OC12 transport circuit, is the volume of telecommunications traffic transmitted over a specific transport route. This volume of traffic, or demand, determines both the appropriate capacity sizing of the terminal equipment and fiber cable. Additionally, it defines the units over which these costs are spread. In cost determination, this basic principle is referred to as utilization. As volumes of traffic vary across specific transport routes, so do the sizing and utilization of terminals and fiber cable, and ultimately the resulting unit costs.

Q. Should terminal bandwidth OC3, OC12, OC48 (Associated Variables) be considered in the development of transport costs?

A. Yes. As traffic volumes or demand increases, larger terminals with increased capacity are used. Use of larger terminals associated with increased traffic volume results in greater economies and lower unit costs.

A basic characteristic of fiber cable is that the volume of traffic is a function of the optical terminal's bandwidth/capacity (OC3, OC12, and OC48) placed on the fiber ring. From this basic principle, it follows that the same traffic volume that drives the unit cost of the terminals is also a major determinant in the transport unit cost of the fiber. The same relationship exists for fiber as for terminals, in that the more traffic that a

specific transport route carries the lower the unit cost of DS0, DS1, DS3, OC3 or OC12 on that route.

Q. Should distance (Associated Variables) be considered in the development of transport costs?

A. Yes. It is obvious that as the distance around a transport ring increases, more fiber cable must be placed, thereby increasing the cost of bandwidth on that ring. Related to the impacts of distance on transport unit costs is the fact that as distance increases, the likelihood for needing multiple survivable SONET rings to connect the two network end points increases. The potential use of multiple rings to transport traffic between certain end offices is unavoidable due to ultimate capacity constraints of terminal equipment and the need to construct fiber rings that link the predominant communities which originate and terminate the largest volumes of traffic on any given ring. Two communities with a relatively smaller need (i.e. volume) for transporting traffic between themselves would normally not exist on the same ring. Therefore, in order to transport the relatively lower volumes of traffic between these two communities having lower volumes of traffic, multiple rings are required to establish the circuit. For example when two remotes that are homed off of two different host switches have local calling to each other, each remote is on a different ring back to its host switch.

Q. What are Sprint's assumptions associated with the development of transport terminal cost inputs?

A. The transport terminal cost inputs should recognize the following key assumption items:

- Transport Terminal Cost is Based on Sprint-Florida Specific Data
- Utilizes Forward Looking Technology
- Includes Optical Based Transmission Equipment Costs Only
- Capable of Costing OC3, OC12, and OC48 Transport Rings Individually
- Reflects the Use of LEC's Existing Wire Centers

More specifically, the terminal cost should be developed by terminal bandwidth (OC3, OC12, and OC48) and should include all of the common components required to make it operational. This would include the following components: relay racks, shelves, line interface, common shelf processor, tributary shelf processor, receive/transmit access module, tributary transceiver, line shelf power supply, common shelf power supply, ring controller, synchronizer card, USI-LAN interface, software, cables, cover, DS3 switch, transmitters, craft interface equipment and software, and common complement of spare equipment. In addition to the above common equipment, additional line or drop interface equipment will be required for the hand off of DS0's, DS1's, DS3's, OC3's and OC12's.

Q. What is the appropriate method for the development of Sprint's terminal cost inputs?

A. Sprint's cost model inputs for terminals are filed in Volume II of Exhibit KWD-2, under the Transport section. The interoffice transport terminal cost inputs reflect Sprint's current vendor material costs and applicable Florida specific sales tax. The engineering/installation labor inputs were developed by Sprint Engineering as typical work durations considered appropriate for this cost study. Florida specific labor rates were also utilized.

ISSUE 9: (a) What are the appropriate recurring rates (averaged or deaveraged as the case may be) and non-recurring charges for each of the following UNEs?

(15) Shared interoffice transmission

Q. What does the FCC say about the rates for transport?

A. FCC 96-325, First Report and Order, Paragraph 822, states,

"Typically, transmission facilities between tandem switches and end offices are shared facilities. Pursuant to our rate structure guidelines,

states may establish usage-sensitive or flat-rated charges to recover those costs."

Sprint agrees, and has calculated its TELRIC for dedicated transport on a monthly recurring, flat-rated basis. Sprint also has calculated common transport on a recurring per minute of use (MOU) basis. A study summary titled "Transport Cost Module" is included behind the "Transport" tab in Volume I of Exhibit KWD-2. The testimony of Mr. Jimmy R. Davis addresses the non-recurring charges associated with transport.

Q. Please describe your transport TELRIC methodology for shared interoffice transport (Common Transport).

A. Sprint calculated a weighted average common transport element on a per minute of use basis. This common transport element represents a weighted average cost per DS1 of all the extended area service (EAS) routes associated with Sprint's local exchanges, divided by the average MOU's per DS1. The average MOU's per DS1 was based on a Florida specific traffic study of common use switched trunks. Sprint's witness Mr. Michael R. Hunsucker will provide testimony regarding the appropriate method to develop the pricing of common transport.

(16) Dedicated interoffice transmission

Q. What does the FCC state regarding the rates for transport?

A. FCC 96-325 First Report and Order, Paragraph 820 states,

> "Our rule that dedicated facilities shall be priced on a flat-rated basis applies to dedicated transmission links because these facilities are dedicated to the use of a specific customer."

Sprint agrees, and has calculated its TELRIC for dedicated transport on a monthly recurring flat-rate basis. A study summary titled "Transport Cost Module" is included behind the "Transport" tab in Volume I of Exhibit KWD-2. The testimony of Mr. Jimmy R. Davis addresses the non-recurring charges associated with transport.

Q. Please describe the transport TELRIC methodology for dedicated transport.

A. The TELRIC methodology is similar for both dedicated and common transport. Sprint created its own Transport Cost Module (TCM), which exists as an Excel workbook. TCM determines the TELRIC of interoffice transport, individually for each fiber optic transmission ring. The cost study narrative and results for transport is contained in Volume I of Exhibit KWD-2, Tab "Transport".

Q. What is the difference between point-to-point and fiber ring transmission systems?

A. Fiber ring technology represents the current state-of-the-art transport design. The most significant characteristic is the use of fiber rings, rather than point-to-point connections, which provide route diversity. Should the cable making up part of the ring be broken, traffic is automatically rerouted over the remainder of the ring. Ring technology has become the industry standard technology, such that asynchronous point-to-point systems can no longer be purchased from vendors.

Q. What percent of Sprint's transmission network in Florida did Sprint model?

A. Sprint modeled 100% of its transmission systems in Florida.

Q. Please describe the TCM.

A. The TCM has three input sheets, and several calculating worksheets. The first input sheet is "TransInputs." The user inputs the following material, engineering and installation cost data by component.

Component Description:

- Fiber optic cable
- Fiber tip cable

- Fiber patch panel
- Fiber optic terminals (OC-3, OC-12 and OC-48)
- OC-3 cards
- OC-12 cards
- DS-3 cards
- DS-1 cards
- Installation cost
- Capacity
- Utilization factors
- Pole and conduit factors
- Annual charge factors
- Aerial, buried, underground mix

The second input sheet is "Trans_Rings." The user inputs each transport ring's characteristics, redesigned as necessary using least cost, forward-looking technology. For example, a current transport system between three locations may be provided through three separate, point-to-point transmission systems. TCM, in most cases, reflects this network as a single fiber ring with three fiber optic terminals. The following is a listing of the Trans_Rings - Ring Characteristic inputs.

Trans_Rings - Ring Characteristics Inputs:

- Ring Name
- Ring Number
- Segment Name

- Ring Type
- Segment Actual Miles
- Number of Repeaters
- Terminal Size
- Number of DS1 Terminations
- Fiber Tip Cable (Per Fiber) Util.
- Fiber Patch Panel (Per Fiber) Util.
- SONET Terminal Shelf (OC3, OC12 and OC48) Util.
- OC12 Card Util.
- OC3 Card Util.
- DS3 Card Util.
- DS1 Card Util.
- DSX3 Cross Connect Shelf
- DSX3 Cross Connect Card
- DSX1 Cross Connect Jack Field
- Channel Bank Shelf
- Channel Bank Card
- Aerial Fiber (Per Fiber) Util/Sharing
- Underground Fiber (Per Fiber) Util/Sharing
- Buried Fiber (Per Fiber) Util/Sharing
- OC3 Card (For Ded. OC3 Service)

The third input sheet is the "Trans_Routes." The user inputs each of the transport routes for the development of a route specific common and

dedicated transport cost for DS0, DS1, DS3, OC3, and OC12. In addition to the route, the user will input the appropriate rings that the route will utilize. The following is a listing of the Trans_Routes inputs.

Trans_Routes Inputs:

- Route Originating
- Route Terminating
- Non Sprint Node
- 1st - 8th Ring Number Utilized

Q. Please describe the calculations performed by the TCM worksheets.

A. There are five basic steps to the TCM calculations for dedicated (DS0, DS1, DS3, OC3 and OC12) transport. The first step is performed by Worksheet A of the TCM, which converts the total utilized capacity of each type of transmission equipment into a cost per DS1.

The second step is performed by Worksheet B, which calculates the costs of each of six types of interconnections. The six interconnection types are OC12 termination, OC3 termination, DS3 termination, DS1 termination, terminal pass-through, and fiber pass-through.

The third step is performed on Worksheet C, which calculates the cost per route mile of fiber facilities, or transit. This cost includes the costs of providing route diversity, or protection.

The fourth step is performed by Worksheet D. The termination and transit costs of each fiber ring are determined using the information in Worksheets A, B, and C. The end result is the termination and transit costs of dedicated DS0, DS1, DS3, OC3, and OC12 transport.

The fifth step is performed by the Weighted Termination/Distance Summary worksheet. The termination and transit cost from the individual summaries are converted to a weighted average cost for termination and transit for each of the dedicated bandwidth options DS0, DS1, DS3, OC3, and OC12.

The common cost factor, which is added to the results to develop the forward-looking economic cost, takes place on each of the individual DS0, DS1, DS3, OC3 and OC12 Summaries.

Q. What does the FCC Order state regarding fill factors?

A. FCC 96-325, First Report and Order, Paragraph 682 states,

> "Per-unit costs shall be derived from total costs using reasonably accurate "fill factors" (estimates of the proportion of a facility that will be "filled" with network usage); that is, the per-unit costs associated with the element must be derived by dividing the total cost

associated with the element by a reasonable projection of the actual total usage of the element."

Q. Please describe what is meant by "reasonably accurate fill factors" (FCC Order Paragraph 682).

A. Fill or utilization factors are the percentage of available network capacity actually used. Utilization is due to three factors.

1. When engineering and building telecommunications facilities, LECs attempt to anticipate future needs. For example, it is more cost-effective to dig a trench once and install additional facilities, than to dig a trench and install new facilities every time a new loop is required.
2. It is the nature of the telecommunications industry that capacity is acquired in large blocks. Additional available capacity will exist while demand grows into the available capacity.
3. An engineering interval, a period of time necessary to plan and construct facilities, is required when replacing or expanding capacity.

Efficient deployment balances the cost-benefit relationship of unused capacity and the cost of installation. Not enough capacity results in inefficient rework (e.g. digging new trenches every month); while too much

capacity is an inefficient use of resources (e.g., burying plant that will never be used).

Q. Is the use of a theoretically high, optimal utilization factor appropriate for telephone companies such as Sprint-Florida?

A. No. With certain sections of Sprint-Florida being rural it does not have sufficient traffic to maintain a high utilization factor. This is in large part due to the nature of transmission capacity. For example, an OC-3 system has the capacity of 3 DS3s, and OC-12 system has the capacity of 12 DS3s. When an OC-3 system is exhausted and replaced with the larger OC-12 system, its maximum utilization at the time of cutover is only 25% (3 DS3s / 12 DS3s). In reality, the cutover takes place prior to absolute exhaustion, so the actual utilization at cutover will be less than 25%.

The same utilization phenomenon occurs when cutting over from an OC-12 to an OC-48 system.

Q. How are the ring costs converted into transport route specific cost?

A. The process consists of the following steps. As an example, the cost of the Fort Myers - Fort Myers Beach DS1 route will be described here. The same process is repeated for each route listed on the "Dedicated Transport Rate Summary" worksheet (Dedicated_Rate tab) found in Volume II of Exhibit KWD-2 under the Transport section.

The first step, takes the input from the Trans_Routes worksheet of the input module to the Dedicated Transport Rate Summary worksheet in the TRANS04.XLS workbook for the development of the transport route cost, in this example the route is Fort Myers - Fort Myers Beach.

The second step is to identify which ring or rings would the DS1 be routed over for the route Fort Myers - Fort Myers Beach. Once the ring is identified along with the ring number of the associated ring, the ring number is entered in the column to the right of the listed route, columns labeled 1st, 2nd, 3rd, through 8th. Through the use of lookup formulas, the model will pull the cost from the Weighted Termination/Distance Summary for the ring number input to provide the dedicated economic cost for the route listed. Instances where multiple rings are required, the sum of the DS1 cost for each ring will become the route specific cost. The Fort Myers to Fort Myers Beach route utilizes only one ring, which results in the cost per DS1 being displayed on an individual route basis on the Dedicated Transport Rate Summary worksheet in column M labeled Dedicated DS1 Rate. This can be validated by looking at the Weighted Termination/Distance Summary worksheet for ring number 81 which has the same monthly cost per DS1 shown in column S of the Weighted Termination/Distance Summary worksheet. Both of these worksheets (Dedicated Transport Rate Summary, Weighted Terminaton/Distance Summary) can be found in the TRANS04.XLS workbook or in Volume II of Exhibit KWD-2 under the Transport Section. Sprint witness Mr. Michael R.

Hunsucker provides testimony regarding the appropriate method to develop the pricing of transport. Sprint witness Mr. Jimmy R. Davis provides testimony regarding the non-recurring charges associated with transport.

II. Circuit Switching

Q. What does the FCC 96-325 First Report and Order state regarding switching as a UNE?

A. FCC 96-325, First Report and Order, Paragraph 412, states, "We defined the local switching element to encompass line-side and trunk-side facilities plus the features, functions, and capabilities of the switch. The line-side facilities include the connection between a loop termination at, for example, a main distribution frame (MDF), and a switch line card. Trunk-side facilities include the connection between, for example, trunk termination at a trunk-side cross-connect panel and a trunk card. The "features, and capabilities" of the local switch include the basic switching function of connecting lines to lines, lines to trunks, trunks to lines, trunks to trunks."

ISSUE 7: What are the appropriate assumptions and inputs for the following items to be used in the forward-looking recurring UNE cost studies?

(o). switching networks and associated variables

(p). traffic data

Q. What assumptions and inputs did Sprint use in its recurring cost studies for forward-looking switching network costs?

A. Sprint uses the FCC's original recommendations in the First Report and Order to develop recurring switching costs.

FCC 96-325, First Report and Order, Paragraph 810 states,

> "We conclude that a combination of a flat-rated charge for line ports, which are dedicated to a single new entrant, and either a flat-rate or per-minute usage charge for the switching matrix and for trunk ports, which constitute shared facilities, best reflects the way costs for unbundled switching are incurred and is therefore reasonable."

Consistent with the FCC's recommendation, Sprint has developed costs for local switching via three separate components: usage sensitive switching, a flat-rated port, and flat-rated features.

A detailed description of the methodology used by Sprint in developing switching costs can be found in Volume I of Exhibit KWD-2. In general, the approach for switching cost development is to distinguish between the fixed and variable switch cost components. The variable component's investment in the switch are divided by the call attempts and minutes of use (MOU), while the fixed components of the switch are divided by the lines in the switch.

Q. Please describe the models used by Sprint for development of circuit switching costs.

A. The costing methodology for circuit switching is developed using an Excel-based Switching Cost Module (SCM) described in Volume I of Exhibit KWD-2. Total investment is derived from the Telcordia SCIS (Switching Cost Information System) model, and combined with actual usage information and company-specific vendor switch discounts to derive TELRIC investment results for each host office complex. The SCIS model is a widely used and accepted industry model for determining switching investment.

Since SCIS only considers vendor-specific hardware investments in each central office, software and power investment required to provide basic switching functionality are determined separately and included with the SCIS results in the SCM investment inputs.

Q. What calculations are performed in the Switching Cost Module?

A. The SCM TELRIC methodology for local switching consists of six basic steps. The calculations for one particular switch, Apopka, Florida, can be found in Volume II of Exhibit KWD-2, under the Switching tab. This process is repeated for each switch studied.

The first step is to determine the total forward-looking switching investment using the SCIS model. Individual Host switches in Florida, which are predominantly Nortel DMS-100 technology, were modeled. The Nortel switch technology represents the predominant technology deployed by Sprint in Florida. However, Lucent switch technology for 5ESS switches were also studied.

Switch investment is segregated into six investment categories. These are:

1. Getting Started - the investment required to provide call set-up costs.
2. Fixed Line - the investment required to terminate the local loop in the central office. It is composed primarily of a line card, the main distribution frame, and protector.
3. Line Usage - the investment associated with usage sensitive line-side switching. It consists primarily of line concentration equipment, digital links, controllers, and a portion of the network modules. Trunk Usage - the investment with usage sensitive trunk-side switching. It is composed primarily of digital trunk controllers, DS1 links, and a portion of the network modules. Umbilical Usage - the usage sensitive investment in host-remote links.
4. SS7 Link - investment associated with the SSP (Service Signaling Point) located in the central office.

This investment information is summarized in Volume II of Exhibit KWD-2, tab "Switching," on the page titled "Common Switching Calculations." Switch specific demand data for MOU and call set-up derived from traffic studies are included on the "Common Switching Calculations" page.

The second step is to determine the number of processor milliseconds required to process each type of call. In the "SetUp" worksheet, actual line side and trunk side call attempts by office are multiplied by the applicable processor milliseconds per call attempt to determine the weighting of total milliseconds that are line or trunk side related. This weighting is applied to the total host and remote getting started investment from the "Expenses" worksheet to determine the line side and trunk side setup costs on per MOU and per attempt basis. This information, shown in Volume II, tab "Switching," on the page titled "Processor Usage," is vendor proprietary.

The third step is to derive monthly expense per investment category by multiplying the investment by the appropriate forward-looking annual charge factor. This is shown in Volume II of Exhibit KWD-2, tab "Switching," on the page titled "Monthly Expenses."

The fourth step is to calculate the cost per call set-up, by call type. This is accomplished by determining the total processor cost per call type, and dividing by the call attempts based on actual switch-specific demand. The resulting calculations, costs per call attempt for both the line and trunk

side of the switch, are shown Volume II of Exhibit KWD-2, tab "Switching," on the page titled "Cost Per Call Set-Up."

The fifth step is to calculate the cost per MOU by call type. This is accomplished by determining the total usage (duration) cost by call type, and dividing by the appropriate MOU. This calculation is shown in Volume II of Exhibit KWD-2, tab "Switching," on the page titled "Cost Per MOU." The TELRIC results (excluding the common cost factor) for each central office in Florida are summarized in the "Cost Summary" worksheet, found in Volume II of Exhibit KWD-2. At this point common costs are not included.

Q. How does SCM segregate costs?

A. The SCM TELRIC switching results are segregated into two distinct switching cost types:

1. Host/Remote complex
2. Tandem offices

Switching costs are provided on a per exchange basis. Each exchange reflects the cost characteristics of the host/remote switching complex providing service to that exchange. These exchange level results are weighted to reflect a study area/state weighted average result.

ISSUE 9: (a) What are the appropriate recurring rates and non-recurring charges for each of the following UNEs?

(13). Circuit switching (where required);

Q. Please describe how Call Termination costs are calculated?

A. The "Call Termination" worksheet, in Volume II of Exhibit KWD-2, tab "Switching," shows the calculations for the Apopka exchange. Call termination costs include the processor call set-up related costs plus duration costs associated with the line, trunk, and host-remote umbilical investment. The TELRIC results for each central office are summarized in the "CT_CA_Summary" worksheet and the "CT_MOU_Summary" worksheet. Sprint calculated a single weighted average set-up cost on a per call attempt basis. The call set-up cost consists primarily of the central processor cost required to set-up the call. In addition to the set-up cost, a cost per MOU was developed for the duration cost of end office call terminations for the entire service area as shown at the top of the worksheet. The MOU costs consist primarily of the line and trunk investment portions of the switch. Common costs are included in these results. This process of separating the call set-up cost from the duration cost is referred to as the bifurcated cost development process.

Q. Can local switching costs be readily separated into two elements?

A. Yes. The Telecordia Switching Cost Information System (SCIS), has a standard output for processor call set-up related costs. Thus, switching costs can be reliably separated into call set-up and per MOU costs to support a bifurcated cost development process.

Q. Please describe the costing methodology for switching ports.

A. The total line termination investment calculated in SCIS for each office is multiplied by the annual charge factor, divided by twelve in the "Expenses" worksheet, and then divided by the number of lines per office on the page titled "Cost per MOU" (MOU worksheet). The calculations for the Apopka office can be found in Volume II of Exhibit KWD-2, on the page titled "Cost per MOU" (MOU worksheet). This process is repeated for each switch studied. Common costs are added on the page titled "Local Switching Costs" (Local Switching worksheet) and the statewide average is calculated on the page titled "Local Switching Rate Bands" (LS Rate Bands worksheet). The average voice grade port cost reflects the percentage of GR303 lines modeled. The port costs for non-voice grade services, i.e. ISDN-BRI, ISDN-PRI, PBX DS1, and PBX DID are also calculated using SCIS investment tables and port specific inputs.

Q. Please describe the costing methodology for features.

A. The SCIS/IN model is used to determine the cost of the most prevalent features. In total, twenty-four Centrex features, eight CLASS features, ten

Custom Calling features, and eight BRI-ISDN features were studied. Actual usage and demand information for Florida was used in the SCIS/IN model.

Second, the SCIS/IN model only aggregates resource costs for the switch resources consumed, along with costs for any additional hardware required to provide the feature. Software costs are added separately.

Third, the annual charge factor is applied to derive an annual cost.

Fourth, the annual cost is divided by twelve to derive a monthly cost.

Fifth, the common cost factor is applied to determine the total cost of the features in each category, for a total feature package cost.

Q. How does Sprint propose to offer switching features purchased with an unbundled port?

A. Sprint has developed feature packages that may be purchased with a switching port. Individual feature packages for Custom Calling, CLASS, Centrex and BRI-ISDN may be selected to provision on individual access lines. This will alleviate ALECs from having to purchase feature capability for their customers who do not desire features, while allowing Sprint to recover its feature-related costs on a per port basis.

Q. Should carriers be permitted to purchase unbundled features without purchasing the switching port?

A. No. As supported by the FCC, feature capability is an integral part of the switch. Sprint's approach is to allow the ALEC to customize the switching ports it purchases from Sprint. The ALEC cannot purchase feature capability without first purchasing the switching port.

Q. Please describe the costing methodology for local tandem switching.

A. The tandem switching cost methodology is the same as for local switching. It is assumed that the cost of local tandem switching is equal to local trunk-to-trunk switching. An example for the Apopka office is shown on the page titled "Tandem Switching Costs" (Tandem Switching worksheet) page included in Volume II of Exhibit KWD-2, tab "Switching."

Q. When does the local tandem switching cost apply?

A. The SCM calculates a single weighted average cost for Sprint's entire service area. However, for costing purposes, specific offices that provide a local tandem switching function were identified. These local tandem switches and resulting pricing are addressed in the testimony of Sprint's witness, Mr. Michael R. Hunsucker. Tandem switching charges apply if local traffic goes through both a local tandem switch and an end-office

switch to reach a customer; both rates would apply (as well as common transport) and are simply added together.

Q. Please describe the costing methodology for UNE-P lines.

A. As described in Volume I of Exhibit KWD-2, UNE-P is comprised of a loop and switch port combination. Essentially, the cost for UNE-P is the sum of the cost of all the elements in the platform. This cost study accounts for the combination of loops and switch ports.

The elements of UNE-P for this filing consist of a 2-wire loop and switching port. The benefits that result are related to using a GR-303 switch interface. The primary difference between the cost of a loop and port that are sold in combination (UNE-P) and those elements purchased on a standalone basis, is the result of the technology used to provide the elements. The technical difference between unbundled loops and ports purchased as part of UNE-P, is that the GR-303 interface is used in place of an analog interface. With GR-303, the Integrated Digital Loop Carrier (IDLC) Central Office Terminal (COT) is integrated with the central office switch. This permits connectivity between the switch and COT at the DS-1 level in lieu of individual switch line cards and COT line cards connected back to back with analog jumpers. The positive economies for loops sold in combination with switching are related to the differences in labor and material in the IDLC system and to the substitution of DS-1 level for line level switch and COT interfaces.

Q. What is the UNE-P cost and when does it apply?

A. The cost consists of the per exchange UNE-P loop and UNE-P statewide average port cost. The study results contained in Volume II of Exhibit KWD-2, tab Loop, include an average UNE-P switch port cost. The complete UNE-P cost includes both loop and port costs for each exchange. The UNE-P cost would apply whenever a combined switched line and port are concurrently purchased. Application of these costs and pricing are addressed in the testimony of Sprint's witness, Mr. Michael R. Hunsucker.

Q. Does this conclude your direct testimony?

A. Yes.

(Transcript follows in sequence in Volume 2.)

STATE OF FLORIDA)
: CERTIFICATE OF REPORTER
COUNTY OF LEON)

I, LINDA BOLES, RPR, Official Commission Reporter, do hereby certify that the foregoing proceeding was heard at the time and place herein stated.

IT IS FURTHER CERTIFIED that I stenographically reported the said proceedings; that the same has been transcribed under my direct supervision; and that this transcript constitutes a true transcription of my notes of said proceedings.

I FURTHER CERTIFY that I am not a relative, employee, attorney or counsel of any of the parties, nor am I a relative or employee of any of the parties' attorneys or counsel connected with the action, nor am I financially interested in the action.

DATED THIS 1ST DAY OF MAY, 2002.

Linda Boles

LINDA BOLES, RPR
FPSC Official Commissioner Reporter
(850) 413-6734