Exhibit No.:
Issues: Phase 2 - Loops & Transport

Witness: James M. Maples
Sponsoring Party: Sprint
Type of Exhibit: Direct Testimony
Case No.: TO-2004-0207
Date Testimony Prepared: January 12, 2004

SPRINT MISSOURI, INC.
AND
SPRINT COMMUNICATIONS COMPANY, L.P.

DIRECT TESTIMONY

OF

JAMES M. MAPLES

IN THE MATTER OF A COMMISSION INQUIRY INTO THE POSSIBILITY OF IMPAIRMENT WITHOUT UNBUNDLED LOCAL CIRCUIT SWITCHING WHEN SERVING THE MASS MARKET

CASE NO. TO-2004-0207

Jefferson City, Missouri
January 2004

BEFORE THE PUBLIC SERVICE COMMISSION
STATE OF MISSOURI

In the Matter of a Commission Inquiry into the Possibility of Impairment without Unbundled Local Circuit Switching When Serving the Mass Market	))))	Case No. TO-2004-0207

AFFIDAVIT OF JAMES M. MAPLES

STATE OF KANSAS)
) ss:
COUNTY OF JOHNSON)

I, James M. Maples, being of lawful age and duly sworn, dispose and state on my oath the following:

1. I am presently Senior Manager, Regulatory Policy for Sprint Missouri, Inc.

2. I have participated in the preparation of the attached Direct Testimony in question and answer form to be presented in the above entitled case;

3. The answers in the attached Direct Testimony were given by me; and,

4. I have knowledge of the matters set forth in such answers and that such matters are true and correct to the best of my knowledge and belief.

James M. Maples
JAMES M. MAPLES

Subscribed and sworn to before me on this 12th day of January, 2004.

Sharon L. Yancey
NOTARY PUBLIC

My Appointment Expires:

NOTARY PUBLIC OFFICIAL SEAL STATE OF KANSAS
SHARON L. YANCEY
MY COMMISSION EXPIRES
April 7, 2004

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI
DIRECT TESTIMONY

OF

JAMES M. MAPLES

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

A. My name is James M. Maples. My business address is 6450 Sprint Parkway, Overland Park, KS 66251. I am employed as Senior Manager – Regulatory Policy for Sprint/United Management Company.

Q. Please summarize your qualifications and work experience.

A. I received a Bachelor of Science degree from East Texas State University, Commerce, Texas, in December 1973 with majors in mathematics and industrial technology. During that period, beginning in 1968, I was also employed by Sprint/United Telephone Texas as an installer/repairman of residential, simple and complex business systems and as a central office switchman. I completed the company's Management Training program in 1974 and was promoted to the position of Revenue Requirement Analyst later that same year.

For the next seventeen (17) years I held positions of increasing responsibilities in state, regional and corporate Sprint organizations. During that period, I prepared or was responsible for jurisdictional separation studies, revenue budgets, demand

forecasts, access charge rates, and financial reporting to various regulatory agencies.

From 1991 through 1995, as Manager Cost Allocations at Sprint/United Management Corporation, I developed financial models for alternative regulation, participated in a two-year project to develop a system-wide product costing model, developed and trained personnel on revenue budget models, and standardized systems for separations costing through system design, development, testing and implementation.

In 1995, I accepted the position of Manager-Pricing/Costing Strategy and for 17 months coordinated several system-wide teams that were charged with the identification and development of methods, procedures, and system changes required to implement local competitive services. During that period, I coordinated the technical support needed to establish and maintain relationships with Competitive Local Exchange Carriers (CLECs).

From September 1996 through July 1999, I held the position of manager of Competitive Markets – Local Access with the responsibility for pricing unbundled network elements, supporting negotiations with new competitive carriers, and assisting in implementation issues.

I began my current position in August 1999. My responsibilities include the review of legislation, court rulings and state Commission orders affecting telecommunications policy, interpreting the impact to the corporation, developing positions, communicating them throughout the organization, and representing them before regulatory bodies such as the Public Service Commission of the State of Missouri.

Q. Have you previously testified before state regulatory commissions?

A. Yes. I have testified before the Florida, Nevada, and California regulatory commissions regarding interconnection and network unbundling issues. I have also previously provided testimony in Phase 1 of this case regarding the appropriate loop cut-over.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to provide Sprint's position regarding the application of FCC-defined triggers and the development of the potential deployment analysis, which will be used in this proceeding to determine non-impairment for DS1, DS3 and dark fiber unbundled loops at specific customer locations and DS1, DS3 and dark fiber unbundled dedicated transport on specific routes.

Q. What are the FCC-defined triggers that are applicable to this proceeding?

A. A trigger is a measure of competition created by the FCC. It establishes conditions that must be met in order for a state commission to remove an Incumbent Local Exchange Carrier's (ILEC) unbundling obligation for a DS1, DS3 or dark fiber loop to a specific customer location or DS1, DS3 or dark fiber dedicated transport on a specific route. The FCC established two types of triggers for loops and transport in the Triennial Review Order,[1] (1) competitive wholesale facilities and (2) self-provisioning, which are not applicable for every loop and transport capacity level (DS1, DS3 and dark fiber). The competitive wholesale facilities trigger is met when the required number of providers other than the ILEC have deployed transmission facilities to the specific customer location or over the route in question and is offering alternative facilities to other carriers on a wholesale basis, at the same capacity level. The self-provisioning trigger is met when providers other than the ILEC have provisioned facilities to the specific customer premises or specific route in question and are using it to serve customers, at the same capacity level. The triggers for the specific loop and transport capacity levels are discussed in more detail later on in my testimony, but the following chart summarized the FCC's requirements.

[1] Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, *In the Matter of Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers,* CC Docket No. 01-338; *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996,* CC Docket No. 96-98; *Deployment of Wireline Services Offering Advanced Telecommunications Capability,* CC Docket No. 98-147, FCC 03-36 (Released August 21, 2003) (Herein referred to as the Triennial Review Order or TRO).

UNE	FCC National Finding	Market Definition	Competitive Triggers
Enterprise Loops	Impaired	Customer Location Specific	DS1: 2 or more wholesale DS3: 2 or more self provision or 2 or more wholesale Dark Fiber: 2 or more self provision
Dedicated Transport	Impaired	Route Specific	DS1: 2 or more wholesale DS3: 3 or more self provision or 2 or more wholesale Dark Fiber: 3 or more self provision or 2 or more wholesale

Q. If the appropriate trigger is met for a specific loop or specific transport route, can the Commission still require the ILEC to provide access to the unbundled loop or dedicated transport?

A. No. Sprint believes that the rules require a finding of no impairment for a loop to a specific customer location or dedicated transport on a specific route when the appropriate trigger has been met. This means that the ILEC no longer has the obligation to offer access to an unbundled loop to the specific customer location or dedicated transport on the specific route.

Q. Can the Missouri Public Service Commission use a combination of wholesale and self-provisioning triggers to make a finding of non-impairment?

A. No. A condition of non-impairment can only be determined based on triggers when either one or the other trigger is met. For example, the rules for DS3 loops

include both the self-provisioning and wholesale triggers. Either trigger can be met when two or more competing providers qualify for one or the other, but a condition of non-impairment cannot be declared if both triggers have only one carrier meeting them.

Q. Is it necessary for both the self-provisioning and wholesale triggers to be met before the Commission can make a finding of no impairment?

A. No. A finding of no impairment can be reached through the application of only one trigger. This interpretation is consistent with statements in the TRO such as, "If the state commission makes a finding of no impairment based on the application of the Self-Provisioning Trigger, it is not necessary to separately apply the Competitive Wholesale Facilities Trigger."[2] In addition, the self-provisioning trigger does not apply to DS1 loops and DS1 dedicated transport.

Q. What evidence should the Missouri Public Service Commission require in order to determine if a trigger has been met?

A. The FCC described the states' role in these proceedings as one of fact-finding.[3] The determination should therefore be based on real, discoverable evidence. Triggers are met when the state commission determines that the appropriate number of providers are supplying the services or facilities in question for the specific customer location or specific route. Once a customer location or route

[2] ¶332, TRO
[3] ¶328, ¶394, TRO

has been selected for study, it is a matter of collecting information from the providers that are actually supplying services or facilities to that customer location or over the transport route and evaluating the information with respect to the trigger criteria in the rules. The critical aspect of applying the competitive triggers is that it is based on what is actually occurring, not what could be. The FCC found "that actual competitive deployment is the best indicator that requesting carriers are not impaired, and therefore emphasize that this quantitative trigger is the primary vehicle through which non-impairment findings will be made. We recognize, however, that this high-capacity loop trigger measures only the existing of *actual* deployed competitive alternatives at a customer location rather than whether the particular customer location *could* be economically served by competitive carriers through the deployment of alternative loop transmission facilities."[4]

Q. If the self-provisioning or wholesale trigger is met for a specific loop or transport route, does the TRO allow the Commission to make a finding of non-impairment on some other basis?

A. Yes, the rules require that state commissions conduct a potential deployment analysis for DS3 and dark fiber unbundled loops and DS3 and dark fiber dedicated transport if no triggers are met. Such an analysis is not allowed for DS1 loops and DS1 transport.

[4] 335, TRO, See also ¶410 for similar comments regarding dedicated transport.

Q. What is the potential deployment analysis and when is it conducted?

A. The potential deployment analysis is an economic exercise to determine if competing carriers can economically deploy their own facilities to a specific customer location or secure such facilities from other providers. The FCC rules provide a list of factors that must be considered in the analysis such as the cost of constructing facilities for the specific topography, rights-of-way issues and the existence of facilities based competition. In order to reach a finding of no impairment a state commission must determine that denying access to unbundled elements does not pose a barrier or barriers to entry that are likely to make entry into a market uneconomic.[5]

Q. Must the potential deployment analysis be done on a customer specific location or interoffice route basis?

A. Yes. The analysis would be conducted in response to a claim from an ILEC that a loop to a specific customer location or dedicated transport on a specific route should be removed from its unbundling obligation on that basis.

Q. Can additional loops and transport routes be removed from ILEC unbundling obligations after this proceeding is completed?

A. Yes. After this initial proceeding, the FCC's rules require state commissions to conduct a review using the same criteria "within six months of the filing of a

[5] ¶84, TRO

petition or other pleading to conduct such a review."[6] Sprint believes that state commissions have the flexibility to determine the exact process consistent with the procedures that they normally employ; however, the six-month time limit is not variable.[7]

Q. Specific to Missouri and this case, does Sprint believe that any of the triggers have been met for either unbundled loops or unbundled dedicated transport based on the information that has been provided in this proceeding?

A. No. The information that has been provided to date has not contained sufficient detail to make a factual determination of non-impairment for any customer locations or transport routes.

Enterprise Loops

Q. What is an unbundled loop?

A. An unbundled loop is a transmission facility between a main distribution frame in a central office and the loop demarcation point at the end-user customer premises. The facility can consist of all copper, all fiber, or combination of copper, fiber and electronics. The loop demarcation point is where the ownership of the facility transitions from the ILEC to the end user. For example, a simple residential loop is the pair of wires going from the phone company's central office to the customer's house, terminating on a network interface device (NID). Customer owned inside wire connects the NID with telephones or other equipment inside

[6] §51.319(a)(7)(ii) and §51.319(e)(4)(ii), Code of Federal Regulations
[7] Footnote 993, TRO

the customer's home. In this situation, the NID would be considered the loop demarcation point.

Q. You stated earlier that the FCC-competitive triggers for loops are to be assessed by specific customer location? What is a specific customer location?

A. Sprint believes that the term "customer location" refers to a building or unit of property. A customer location can house one or more individual customers. The basis for that interpretation is the second qualification for meeting the wholesale trigger contained in §51.319(a)(4)(ii)(B) and §51.319(a)(5)(i)(B)(2) of the Code of Federal Regulations, which states that the competing carriers must have "access to the entire customer location, including each individual unit within that location."

Q. What is the importance of this distinction between customer location and access to each individual unit within a location?

A. The self-provisioning trigger for DS3 loops and dark fiber loops require that competing providers have deployed facilities to the customer location but does not include the additional requirement that the providers have access to each individual unit with the location. This means that the self-provisioning trigger can be met for DS3 loops if 2 or more competing providers have deployed their own DS3 facilities to a customer location and are serving at least one customer at

that location, but not necessarily all customers at that location.[8] With respect to the wholesale transfer, this is not true as ICECs must also demonstrate that the wholesale provider offers access to all customers in the customer location.

Q. Does this give ILECs the ability to prevent competing providers from gaining access to customers at a specific location?

A. No. ILECs have an obligation to provide unbundled access to inside wire that they own or control as a subloop. This obligation is irrespective of capacity level or type of loop and is not removed via application of the competitive triggers.[9] For example, assume that a competitive provider has installed DS3 loop facilities to a building, has not installed any inside wire, and the existing inside wire is owned or controlled by the ILEC. If the building owner does not allow the competing provider to install its own inside wire the only recourse is to utilize the inside wire owned or controlled by the ILEC.

DS1 Enterprise Loops

Q. What is a DS1 unbundled loop?

A. A DS1 unbundled loop is an unbundled loop that has a total digital signal speed of 1.544 megabytes per second. A DS1 loop can provide 24 individual voice grade (DS0) circuits. An example of a DS1 customer application may include a small business that requires 15 individual phone lines (rather than purchase 15 individual phone lines, the customer orders one DS1).

[8] See ¶332 and footnote 979, TRO
[9] §51.319(b)(2), Code of Federal Regulations

Q. When must an ILEC provide access to a DS1 unbundled loop?

A. An ILEC must provide access to DS1 unbundled loops to a specific customer location if the wholesale trigger has not been met.

Q. What is the wholesale trigger for a DS1 unbundled loop?

A. Per the FCC rules, a minimum of two non-affiliated competing providers must have deployed facilities to the customer location and offer DS1 loops over the facilities on a widely available wholesale basis to requesting telecommunications carriers. The facilities used by the competing providers can include dark fiber that it has obtained on an unbundled, leased, or purchased basis as long as it has attached its own optronics to it. In addition, the competing providers must have access to the entire customer location.

Q. Is there a limit to the number of DS1 loops that a CLEC can get to a specific customer location?

A. No, unlike the limit on DS3 loops, there is no limit to the number of DS1 loops that a CLEC can order to a specific customer location.

DS3 Enterprise Loops

Q. What is a DS3 unbundled loop?

A. A DS3 unbundled loop is an unbundled loop that has a total digital signal speed of 44.736 megabytes per second. A DS3 unbundled loop is the equivalent of 28 DS1 loops or 672 DS0 loops. An example of a DS3 customer application may include

providing telecommunications services to a large business with hundreds of centrex lines or digital PBX trunks along with high-speed circuits for various data applications.

Q. When must an ILEC provide access to a DS3 unbundled loop?

A. An ILEC must provide access to a DS3 unbundled loop to a specific customer location when the wholesale and self-provisioning triggers have not been met and the state has determined that potential deployment is not feasible. In addition, there is a limit of two DS3 loops per carrier for the specific customer location.

Q. What is the self-provisioning trigger for a DS3 unbundled loop?

A. Per the FCC rules, a minimum of two non-affiliated competing providers must be providing DS3 services to customers at the specific customer location using facilities that they have deployed themselves or are using their own optronics attached to dark fiber obtained via a long-term right of use arrangement.

Q. What is a long-term right of use arrangement?

A. A long-term right of use arrangement, or IRU, is a long-term contract in which a carrier has secured unrestricted use of facilities from a provider. The trigger is limited to arrangements for dark fiber only.[10] For example, a contract between a carrier and a dark fiber provider that gives the carrier use of the dark fiber for a 20-year term without fear of cancellation, and allows the carrier to use the dark

[10] See Footnotes 981 and 1265, TRO

fiber for any purpose, would qualify as an IRU. On the other hand, a contract between a carrier and a dark fiber provider that restricts the use of the fiber to a specific service, such as long distance services, or allows the provider to cancel the contract solely at its discretion, would not qualify as an IRU.

Q. What is the wholesale trigger for a DS3 unbundled loop?

A. Per the FCC rules, a minimum of two non-affiliated competing providers must have deployed facilities and offer DS3 loops over the facilities on a widely available wholesale basis to requesting telecommunications carriers. The facilities used by the competing providers can include dark fiber that it has obtained on an unbundled, leased, or purchased basis as long as it has attached its own optronics to it. In addition, the competing providers must have access to the entire customer location.

Q. You mention that there is a two DS3 cap per specific customer location. If the building has multiple tenants, is this limit applied to the building or to each tenant or individual unit within the building?

A. As stated previously, the limit is applied to the building, not individual tenants. The FCC determined that a competing provider can self-provision its own fiber facilities when its capacity requirements surpass two DS3's per building.[11]

[11] ¶298, ¶324, and footnote 954, TRO

Dark Fiber Enterprise Loop

Q. What is a dark fiber loop?

A. A dark fiber unbundled loop is an unbundled loop consisting of fiber within an existing fiber optic cable that has not yet been activated by attaching optronics to it. This means that the fiber has been deployed but not activated by connecting it to the equipment necessary to provide service.[12]

Q. When must ILECs provide access to a dark fiber unbundled loop?

A. An ILEC must provide access to a dark fiber unbundled loop to a specific customer location when the self-provisioning trigger has not been met and the state has determined that potential deployment is not feasible.

Q. What is the self-provisioning trigger for a dark fiber unbundled loop?

A. Per the FCC rules, a minimum of two non-affiliated competing providers have deployed their own dark fiber facilities to a specific customer location. Dark fiber obtained via a long-term indefeasible right of use should also be considered; however, dark fiber secured as an unbundled element should not be included.

[12] Footnote 628, TRO

Dedicated Transport

Q. What is unbundled dedicated transport?

A. Dedicated transport is interoffice transmission facilities connecting ILEC switches or wire centers within a LATA.[13] Dedicated transport is classified based on the capacity of the service (i.e. DS1 and DS3) or the type of facility (i.e. dark fiber). For example, Sprint's Jefferson City switch also serves the neighboring Centertown exchange. The wire or fiber connecting Sprint's Jefferson City switch equipment on Madison Street and the switch equipment in Centertown is an example of dedicated transport.

Q. What is a route?

A. A route is a transmission path between two ILEC locations, either switches or wire centers. In other words, the two end points of the route must either be an ILEC switch or wire center. A particular route may pass through intermediate switches or wire centers. A competing carrier does not have to self-deploy dedicated transport over the same exact path, through the same intermediate locations as the ILEC.[14]

Q. What is a wire center?

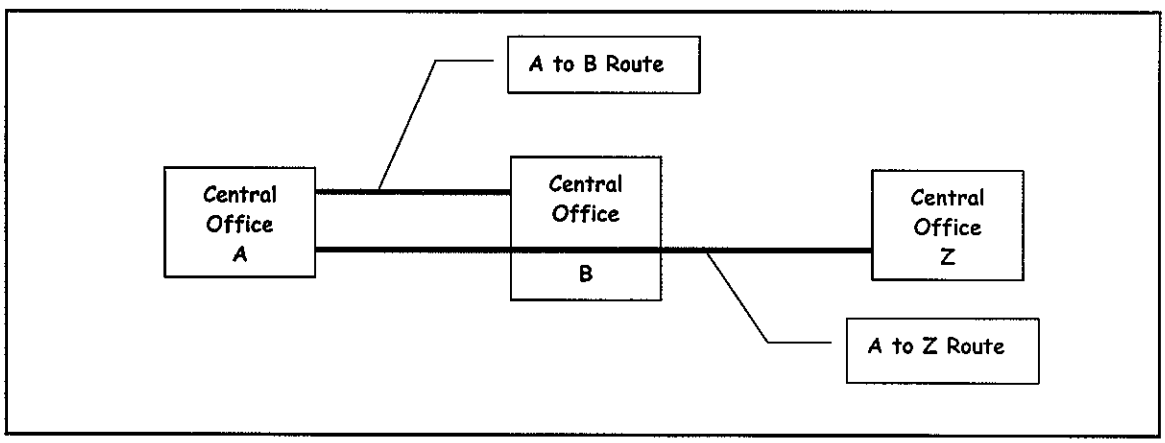
A. A wire center is a location in an ILEC network where it terminates loop facilities. Usually located at central office switches, it will house a main distribution frame

[13] ¶365, TRO
[14] ¶401, TRO

and equipment necessary to maintain the outside plant. An ILEC tandem central office switch, located in a building where loops are not terminated, is an example of a central office switch location that would not qualify as a wire center.

Q. If a state commission determines that competing carriers are not impaired without access to unbundled dedicated transport between ILEC central offices A and B, but the same facilities are necessary to get from ILEC central offices A to central office Z, must the state commission make a finding of no impairment for the A to Z route?

A. No. The question describes a scenario where ILEC central office B is an end point for the A to B route, but is an intermediate location for the A to Z route. The diagram below illustrates the situation. The rules are clear that state commissions are to look at the end points of each route in making their determination; therefore, it is possible for the triggers to be met for the A to B route but not the A to Z route. If that were the case, dedicated unbundled transport would have to be provided between A and B for circuits ordered between A and Z.



DS1 Transport

Q. What is unbundled dedicated DS1 transport?

A. Unbundled dedicated DS1 transport is unbundled dedicated transport that has a total digital signal speed of 1.544 megabytes per second and is dedicated to a particular customer or carrier. Similar to the DS1 unbundled loops, dedicated DS1 transport can be used to provide 24 individual DS0, voice-grade circuits.

Q. When must ILECs provide access to unbundled dedicated DS1 transport?

A. ILECs must provide access to unbundled dedicated DS1 transport for a particular route when the wholesale trigger has not been met.

Q. What is the wholesale trigger for unbundled dedicated DS1 transport?

A. Per the FCC rules, a minimum of two un-affiliated competing providers must meet several qualifications. First, each competing provider must have deployed its own transport facilities along a particular route; including facilities that incorporate the carriers own optronics attached to dark fiber that it has obtained via an unbundled, leased, or purchased basis. Second, each competing provider must be operationally ready to use those facilities and be willing to provide DS1 services on a widely available basis immediately. In other words, each competing provider is actually in the business of providing wholesale DS1 services over the facilities in question. Third, the ends of each provider's facilities located in ILEC central offices or wire centers terminate in collocation arrangements and the ends not located in ILEC locations terminate in an arrangement similar to collocation. And fourth, requesting telecommunications carriers have reasonable and non-

discriminatory access to the competing providers facilities at any end point through a cross-connect or similar arrangement. It does no good for the facilities to be in place if requesting telecommunications carriers are denied access or the terms of access create a barrier.

DS3 Transport

Q. What is unbundled dedicated DS3 transport?

A. Unbundled dedicated DS3 transport is unbundled dedicated transport that has a total digital signal speed of 44.736 megabytes per second and is dedicated to a particular customer or carrier. Similar to the DS3 unbundled loops, dedicated DS3 transport can be used to provide 28 individual DS1 circuits or 672 individual DS0, voice-grade circuits.

Q. When must ILECs provide access to unbundled dedicated DS3 transport?

A. ILECs must provide access to unbundled dedicated DS3 transport for a particular route when the self-provisioning and wholesale triggers have not been met and the state has determined that potential deployment is not feasible. In addition, there is a limit of 12 DS3s per carrier for a specific transport route.

Q. What is the self-provisioning trigger for unbundled dedicated DS3 transport?

A. Per the FCC rules, a minimum of three un-affiliated competing providers must have deployed their own transport facilities for the route in question and be operationally ready to provide dedicated DS3 transport. The facilities can also

consist of optronics owned by the competing providers attached to dark fiber obtained on a long-term, indefeasible right of use basis. In addition, the end points of the facilities must terminate in a collocation arrangement when located in ILEC central offices or wire centers and in similar arrangements in non-ILEC locations.

Q. What is the wholesale trigger for unbundled dedicated DS3 transport?

A. The wholesale trigger for unbundled dedicated DS3 transport is the same as the wholesale trigger for unbundled dedicated DS1 transport except that the service being measured is DS3 transport instead of DS1 transport.

Dark Fiber Transport

Q. What is unbundled dedicated dark fiber transport?

A. Unbundled dedicated dark fiber transport is unbundled dedicated transport that consists of optical interoffice transmission facilities (fiber) that have not been activated.

Q. When must ILECs provide access to unbundled dedicated dark fiber transport?

A. ILECs must provide access to unbundled dedicated dark fiber transport for a specific route when the self-provisioning and wholesale triggers have not been met and the state has determined that potential deployment is not feasible.

Q. What is the self-provisioning trigger for unbundled dedicated dark fiber transport?

A. Per the FCC rules, a minimum of three un-affiliated competing providers must have deployed their own dark fiber facilities for the route in question or secured dark fiber on a long-term, indefeasible right of use basis. In addition, the end points of the facilities must terminate in a collocation arrangement when located in ILEC central offices or wire centers and in similar arrangements in non-ILEC locations.

Q. What is the wholesale trigger for unbundled dedicated dark fiber transport?

A. The wholesale trigger for unbundled dedicated dark fiber transport is the same as the wholesale triggers for DS1 and DS3 transport with one major addition. State commissions can reach a finding of impairment for dark fiber transport even if there are two or more competitive providers supplying wholesale dark fiber over a specific route.

Q. You mention that a state can make a finding of impairment for a specific route even if there are two competing providers supplying wholesale dark fiber. What is your basis for that claim?

A. The rule[15] allows states to consider the total demand for dark fiber for the route in question and the competing providers' ability to meet the demand when deciding if the wholesale trigger has been met. For instance, a specific route might have

[15] §51.319(e)(3)(i)(B), Code of Federal Regulations

two competing providers with only 10 available spare fibers, yet there is demand for 20 spare fibers from requesting telecommunications carriers. In that case, state commissions have the latitude of determining that the wholesale trigger is not met and that the ILEC must continue to provide access to unbundled dedicated dark fiber transport.

Q. Does this conclude your testimony?

A. Yes.