

## APPENDIX NETWORK INTERCONNECTION METHODS (NIM)

This Appendix NIM to Attachment 11: Network Interconnection Architecture designates Network Interconnection Methods (NIMs) to be used by the Parties to obtain interconnection. These include, but are not limited to Fiber Meet Point Virtual Collocation; Physical Collocation; or other technically feasible method of obtaining interconnection which is incorporated into the Interconnection Agreement by amendment.

### 1. FIBER MEET POINT

- 1.1 Fiber Meet Point will be on a point-to-point linear chain SONET system over single-mode fiber optic cable.
- 1.2 Fiber Meet Point shall be used to provide transport for Local Interconnection Trunk Groups as defined in Appendix ITR to Attachment 11: Network Interconnection Architecture (NIA).
  - 1.2.1 Fiber Meet Point: CLEC will provide fiber cable to the last entrance manhole at the SBC MISSOURI tandem switch building or end office switch building with which CLEC wishes to interconnect. CLEC will provide a sufficient length of fiber optic cable for SBC MISSOURI to pull the fiber cable to the SBC MISSOURI cable vault for termination. In this case the POI shall be at the manhole location.
  - 1.2.2 Each Party is responsible for designing, provisioning, ownership and maintenance of all equipment and facilities on its side of the POI. Each Party is free to select the manufacturer of its Fiber Optic Terminal (FOT). Neither Party will be allowed to access the Data Communication Channel (DCC) of the other Party's FOT.
- 1.3 The Parties will mutually agree upon the precise terms of each Fiber Meet Point. These terms will cover the technical details of the Fiber Meet Point as well as other network interconnection, provisioning and maintenance issues.
- 1.4 The SBC MISSOURI tandem or end office building includes all SBC MISSOURI FOT, multiplexing and fiber required to take the optical signal hand-off provided from CLEC for Local Interconnection Trunk Groups as outlined in Appendix ITR. This location is SBC MISSOURI's responsibility to provision and maintain.
- 1.5 CLEC and SBC MISSOURI will mutually agree on the capacity of the FOT(s) to be utilized. The capacity will be based on equivalent DS1s that contain Local Interconnection Trunk Groups. Each Party will also agree upon the optical frequency and wavelength necessary to implement the interconnection. The Parties will develop and agree upon methods for the capacity planning and management for these facilities, terms and conditions for over-provisioning facilities, and the necessary processes to implement facilities as indicated below. These methods will meet quality standards as mutually agreed to by CLEC and SBC MISSOURI.
- 1.6 Avoidance of Over-Provisioning
  - 1.6.1 Underutilization is the inefficient deployment and use of the network due to forecasting a need for more capacity than actual usage requires and results in unnecessary costs for SONET systems. To avoid over-provisioning, the Parties will agree to joint facility growth planning as detailed below.
- 1.7 Joint Facility Growth Planning
  - 1.7.1 The initial fiber optic system deployed for each interconnection shall be the smallest standard available. For SONET this is an OC-3 system. The following lists the criteria and processes needed to satisfy additional capacity requirements beyond the initial system.
  - 1.7.2 Criteria:
    - 1.7.2.1 Investment is to be minimized;
    - 1.7.2.2 Facilities are to be deployed in a "just in time" fashion.
  - 1.7.3 Processes:

- 1.7.3.1 Discussions to provide relief to existing facilities will be triggered when either Party recognizes that the overall system facility (DS1s) is at eighty-five percent (85%) capacity.
- 1.7.3.2 Both Parties will perform a joint validation to ensure current trunks have not been over-provisioned. If any trunk groups are over-provisioned, trunks will be turned down as appropriate. If any trunk resizing lowers the fill level of the system below eighty-five percent (85%), the growth planning process will be suspended and will not be reinitiated until a eighty-five percent (85%) fill level is achieved. Trunk design blocking criteria described in Appendix ITR will be used in determining trunk group sizing requirements and forecasts.
- 1.7.3.3 If based on the forecasted equivalent DS1 growth, the existing fiber optic system is not projected to exhaust within one year, the Parties will suspend further relief planning on this interconnection until a date one year prior to the projected exhaust date. If growth patterns change during the suspension period, either Party may re-initiate the joint planning process;
- 1.7.3.4 If the placement of a minimum size FOT will not provide adequate augmentation capacity for the joint forecast over a two year period, and the forecast appears reasonable based upon history, the appropriately sized system shall be deployed at the outset. If the forecast indicates volume sufficient to justify a system larger than OC-3, SBC MISSOURI shall provide such a system. If the forecast does not justify installing a system larger than OC-3, another minimally size system (such as on OC-3) should be placed. This criteria assumes both Parties have adequate fibers for either scenario. If adequate fibers do not exist, both Parties would negotiate placement of additional fibers.
- 1.7.3.5 Both Parties will negotiate a project service date and corresponding work schedule to construct relief facilities in an effort to achieve "just in time" deployment;
- 1.7.3.6 The joint planning process/negotiations should be completed within two months of identification of 90% fill.

## **2. VIRTUAL COLLOCATION**

- 2.1 The terms and conditions governing Virtual Collocation are contained in Appendix Collocation to Attachment 13: Ancillary Functions of this Agreement.

## **3. PHYSICAL COLLOCATION**

- 3.1 The terms and conditions governing Physical Collocation are contained in Appendix Collocation to Attachment 13: Ancillary Functions of this Agreement.

## **4. OTHER**

- 4.1 Other technically feasible methods of obtaining interconnection which is incorporated into the Interconnection Agreement by amendment.